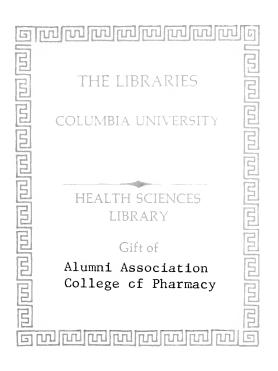
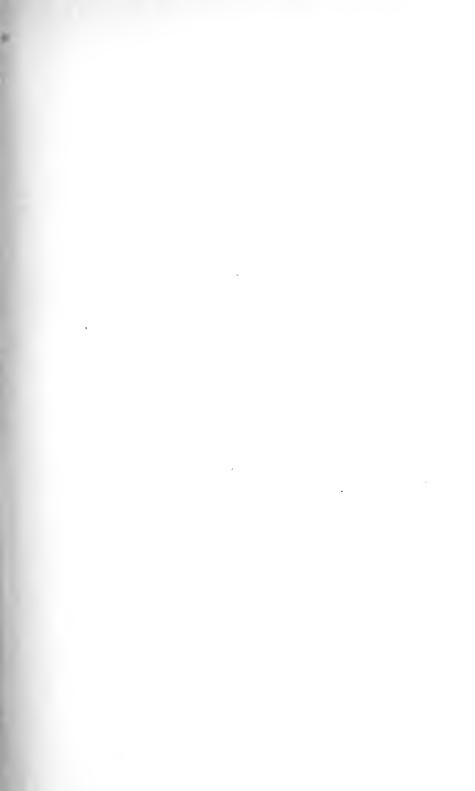


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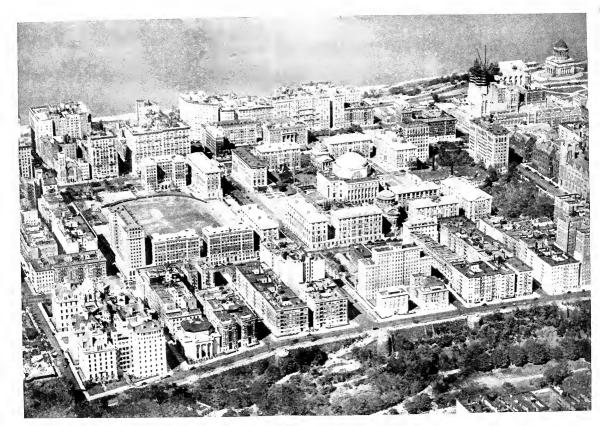
ANNUAL REPORTS







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MORNINGSIDE HEIGHTS IN 1929

ANNUAL REPORT

OF THE

PRESIDENT AND TREASURER

TO THE

TRUSTEES

WITH ACCOMPANYING DOCUMENTS

FOR THE YEAR ENDING

JUNE 30, 1929



MORNINGSIDE HEIGHTS
NEW YORK

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CONTENTS

PART I

PRESIDENT'S REPORT

		Page
I.	The Year 1928–1929	5
2.	Upper Estate	16
3.	Lower Estate	23
4.	The Name Columbia	27
5.	The Academic Career	31
6.	Manners	35
7.	Modern Languages	38
8.	Educational Reconstruction	40
9.	Higher Lawlessness	43
Io.	Medical Center	46
II.	Beginnings of Teachers College	50
12.	School of Engineering	54
13.	Barnard College	56
14.	College of Pharmacy	57
15.	Organization of Research	58
16.	Honorary Degrees	59
17.	University Budget	60
18.	Gifts	63
19.	Property and Endowment	66
20.	Deaths of University Officers	66
21.	One Hundred and Seventy-five Years	67
22.	Tabular Statements	
	Teaching Staff	
	Student Enrollment	69
	Degrees Conferred	70
	The Site	7 I
23.	Maps and Illustrations	72
	REPORTS TO THE PRESIDENT OF THE UNIVERSITY	
	e Dean of Columbia College	
The	e Dean of the School of Law	94

4 CONTENTS

	Page
The Dean of the Faculty of Medicine	. 125
The Dean of the Faculty of Engineering	. 206
The Dean of the Faculties of Political Science, Philose	0-
phy, and Pure Science	. 223
The Director of the School of Architecture	. 240
The Director of the School of Journalism	. 245
The Dean of Barnard College	. 253
The Dean of Teachers College	
The Director of the School of Education	. 283
The Director of the School of Practical Arts	. 290
The Dean of the College of Pharmacy	
The Director of the Summer Session	
The Director of the University Extension	
The Director of the School of Business	
The Dean of the School of Dental and Oral Surgery .	. 349
The Director of the School of Library Service	
The Director of University Admissions	
The University Medical Officer	
The Director of the Institute of Cancer Research	
The Librarian	
The Secretary of Appointments	
The Warden of St. Stephen's College	
The Registrar	
Statistics Regarding the Teaching and Administrative	
Staff	
	1)-
PART II	
PART II	
FINANCIAL REPORTS	
ANNUAL REPORT OF THE TREASURER OF COLUMBIA	
UNIVERSITY TO THE TRUSTEES	. I
FINANCIAL REPORTS OF AFFILIATED INSTITUTIONS	
Barnard College	. 169
College of Pharmacy	. 181
Teachers College	
St. Stephen's College	

REPORT OF THE PRESIDENT OF COLUMBIA UNIVERSITY

FOR THE YEAR ENDING JUNE 30, 1929

TO THE TRUSTEES:

The annual report prescribed by the Statutes to present the condition and needs of the University is herewith submitted. The accompanying reports of the several Deans and Directors are of the largest importance and should be carefully examined with a view to gaining an accurate picture of the manifold activities of the University during the year under review. These reports contain many suggestions and recommendations which should have the earnest attention of the Trustees and of their appropriate Committees.

The year has been one of intense activity and genuine accomplishment. It has seen the solution of some difficult problems and it has included many significant and highly interesting events in the intellectual life of the University.

The Year 1928–1929

The outstanding events of the year are the definite and precise settlement for a long period of the terms and conditions of the lease of that most important part of the University's endowment known as the Upper Estate, accomplished by the patient and solicitous labors of the Treasurer under the guidance and counsel of the Committee on Finance; the quick action taken by the Trustees to relieve the difficult situation in which some 200 officers of the University found themselves by reason of the change in the rules of the Carnegie Foundation for the Advancement of Teaching affecting their prospective retiring allowances as determined by the provisions of the Statutes, §67; the important action taken by the University Council on December 18 relative to the status of University Undergraduates and students enrolled in Seth

Low Junior College who desire to be admitted to work toward a Bachelor's degree while pursuing courses of study in the professional schools; the very considerable revision of the program of study for third-year students in the course of Civil Engineering; the establishment of a new course with the title Introduction to Engineering, to be hereafter prescribed for students seeking admission to the School of Engineering; the careful consideration given during the year to the organization of work in city planning and in land economics; the construction, made possible by the bequest of F. Augustus Schermerhorn of the Class of 1868, a Trustee of the University from 1877 to 1908, of an extension to Schermerhorn Hall, which makes ample and thoroughly modern provision for laboratories and rooms for research workers in the Departments of Anthropology, Botany, Geology, Psychology and Zoölogy; the establishment by the Trustees of the University Medal, to be awarded from time to time to alumni and others for distinction gained in scholarship and service:

The exceptional number of large and helpful gifts to promote research of various kinds, more especially those undertakings that have the supervision of the Council for Research in the Social Sciences and the Council for Research in the Humanities: the opening, on January 29, 1929, of the reëstablished Deutsches Haus as a center of advanced study and research in the Germanic languages and all that they represent, with the kindly and distinguished presence of the German Ambassador at Washington; the useful form of affiliation with Greenwich House, bringing that institution within the University's educational system in order that advanced students might have the benefit of the opportunities which it offers for practical contact with certain social problems and certain social experiments; the action to change the name of the Faculty of Applied Science, which was given to the old Faculty of the School of Mines in 1896, by giving to it the more concrete and accurate title of Faculty of Engineering; the celebration with appropriate exercises of the one hundredth anniversary of the establishment of the College of Pharmacy, an institution which has literally led the way in developing and upbuilding a profession most important for the public service and the public health; the action of the Trustees of the College of Pharmacy in amending their budget for the year 1929-30 by increasing the salary of every officer of the institution by ten per cent; the reorganization of the Department of Romance Languages as it has hitherto existed, following changes among the senior members of the teaching staff, in order to give more direct responsibility and authority to the groups respectively charged with instruction and research in French, in Italian, and in Spanish; the equipment and dispatch to Central Africa of a group of four officers of the University for the purpose of making studies of primates in their native habitat and, with the permission of the Belgian and French Governments, of procuring and bringing to the University a small number of gorillas for the purpose of comparative and highly detailed anatomical study; the formal dedication on October 12, 1928, of the new Medical Center, accompanied by exercises of high dignity and interest; a most useful and helpful conference at the President's House on the Casa Italiana, its support and its field of work, largely attended by those who, though not members of the University, are keenly interested in the success of this undertaking; a President's House conference between Trustees and members of the teaching staff on the future of sociology as a university subject and its relation to such other subjects as law, economics, history, and business administration; a most impressive Conference of Major Industries, organized with the coöperation of the Institute of American Meat Packers, the Chamber of Commerce of the State of New York, and the Merchants' Association of New York, held at the University on October 24, 1928, which attracted nation-wide attention by reason of the participants and the character and quality of their discussions; the striking and significant conference held at Earl Hall on January 30, 1929, between representatives of the Roman Catholic, the Protestant, and the Jewish faiths and churches, with a view to the establishment of fuller understanding and larger coöperation between them; the formal opening, on January 19, 1929, of the Casa Italiana with the valued coöperation of the Italy America Society; the gift to the University by the alumni resident in London of a portrait of George II, by whose authority the original charter of King's College was issued; the acquisition by purchase of the library of Baron Richthofen, a great collection of 4250 volumes on the history of European law; the acquisition by bequest of invaluable books, letters and personal memoranda of the late Professor Brander Matthews;

The exercises held on October 25, 1928, in commemoration of the tenth anniversary of the independence of Czechoslovakia: the very admirable and creditable representation of Greek interests and Greek customs at the annual concert and reunion of the Hellenic Society held in Earl Hall on December 14, 1928; the visit to the University on January 8, 1929, of a company of some 40 students from South Africa who were visiting the United States under the auspices of the National Student Federation; the presence at the University during the year, through the cooperation of the Portland Cement Association, of 140 graduate engineers chosen by the companies in whose service they are, to attend a short and highly concentrated course of instruction and laboratory work on the design and control of concrete mixtures; the stimulating and productive visit of a group of American teachers to Germany under the auspices of the International Institute of Education of Teachers College;

The presence at the University during the year as Visiting Professors, of Francis H. Bohlen, Professor of Law at the University of Pennsylvania, Louis Cazamian, Professor of the English Language and Literature at the Sorbonne, Alfredo Colmo, Judge of the Court of Appeals at Buenos Aires and President of the Instituto Cultural Argentino-Norte Americano, Jan J. L. Duyvendak, of the University of Leiden, Douglas B. Maggs, Professor of Law at the University of Southern California, Robert E. Mathews, Professor of Law at Ohio State University, Thomas R. Powell, Professor of Law at Harvard University, William E. Soothill, Professor of Chinese at Oxford University, and Payson J. Treat, Professor of History at Stanford University;

The visits to the University on November 16, 1928, of H. R. H. Infante Don Alfonso and H. R. H. Infanta Doña Beatriz of Spain; on January 17, 1929, of the Master of Balliol College, Oxford; on January 30, 1929, of the German Ambassador; on February 21, 1929, of the Japanese Ambassador; and, on the same day, of Dr. Fridtjof Nansen, the explorer;

The delivery of lectures before the Institute of Arts and Sciences by many distinguished foreign visitors, including among others, Count Felix von Luckner, Halide Edib Hanum, the Grand Duke Alexander of Russia, Yusuke Tsurumi, Ernest Rhys, Professor Walter Starkie, and Professor Stephen Leacock;

The honor done the University through the invitation extended to the Chairman of the Trustees by the University of Cambridge to deliver a course of lectures on engineering at that University during the months of April and May last; the invitation tendered by the International Mathematics Association to Mr. George A. Plimpton, a Trustee of Barnard College, to read a paper on the history of elementary mathematics as illustrated by the Plimpton Library, at the University of Bologna on September 6, 1928; the valued service of Professor Karl Llewellyn of the Faculty of Law at the University of Leipzig and the publication in the German language of the lectures which he there delivered; the contribution of Professor Victor K. LaMer of the Department of Chemistry to the Institute of Chemistry of the American Chemical Society in session at Northwestern University during the summer of 1928; the election of Professor Franklin W. Johnson of Teachers College to be President of Colby College; the designation of Professor Paul Monroe of Teachers College, Director of the International Institute of Education, to be Commander of the Order of Polonia Restituta in recognition of his service to the Government and people of Poland; the very helpful report on recent educational advances in Germany made by Professor Thomas Alexander and Professor Milton C. Del Manzo of Teachers College: the service of Professor Lynn Thorndike of the Department of History and of Professor David Eugene Smith of Teachers College as members

of the Comité International de l'Histoire des Sciences, brought into existence on the initiative of the International Congress of History held at Oslo in 1928; the visit of Professor William P. Montague of Barnard College to Japan, Russia, Czechoslovakia and Italy as Visiting Carnegie Professor of International Relations; the service of Dr. Haven Emerson of the DeLamar Institute of Public Health in studying, at the invitation of the Health Organization of the League of Nations, the health needs of the people of Greece, and later as representative of the United States on the Commission of Expert Statisticians of the Health Section of the League of Nations at two conferences held respectively in Berlin on April 3 and in Paris on April 10; the service of Professor Philip C. Jessup of the Department of Public Law and Jurisprudence as secretary and assistant to Mr. Elihu Root in connection with the revision of the statute establishing the Permanent Court of International Justice at The Hague; the delivery at the University of Edinburgh of the Gifford Lectures by Professor John Dewey of the Department of Philosophy; the appointment of Professor James C. Bonbright of the School of Business by the Governor of the State of New York to serve on the commission to inquire into the working of the Public Service Law; the designation by the Secretary of the Interior of Professor Charles P. Berkey of the Department of Geology and Mineralogy to serve as a member of the Boulder Dam Commission to investigate the feasibility of the project and examine the alternative sites; the special technical service rendered by Professor Paul F. Brissenden of the School of Business to the Personnel Classification Board of the Federal Service at Washington; the journey undertaken by Professor Douglas W. Johnson of the Department of Geology and Mineralogy to South Africa, Australia and New Zealand to study the uplifted peneplanes of those regions, and to examine reported evidences of extended marine erosions on the coasts of those countries; also, the appointment of Professor Johnson to serve as consultant to the Board of Sand Movement and Beach Erosion recently established by the Chief of Engineers, United States Army, to study shore conditions on the Atlantic Coast; the successful continuance of the unusually important archaeological work undertaken in Greece by Professor William Bell Dinsmoor of the School of Architecture; the many-sided activities of Professor Robert E. Chaddock. of the Department of Social Science, including his service as delegate from the United States, representing the Social Science Research Council, to an International Conference for the Study of Population, held at Paris in July, 1928, his participation, on the invitation of the University of Chicago, in the Conference on Population and Migration conducted at Chicago during the month of June, 1929, and his designation as Chairman of the Advisory Committee of the Social Science Research Council on the utilization of unpublished social data; the appointment of Professor Richard R. Powell of the Faculty of Law, to be Director of the Advisers on Property Law who are engaged in restating the law of property for the American Law Institute; the designation by Governor Roosevelt of Professors Edwin R. A. Seligman, of the Department of Economics, and Robert M. Haig, of the School of Business, as delegates on behalf of New York State to the annual Conference of National Tax Associations held at Saranac in September, 1929; the completion of a very active and useful year of service as Director of the British Division of the American University Union by Professor Noel T. Dowling of the Faculty of Law; the distinguished and helpful contacts established in Berlin and elsewhere by Professor Edwin W. Patterson of the Faculty of Law; the exceptionally varied and practical researches being carried on under the direction of the Faculty of Law by its members, for which very considerable sums have been made available by gift; the designation by authority of the Faculty of Law of a commission under the direction of Professor Jerome Michael to make a survey of every phase of crime detection and prevention in the United States, a chief purpose of the study being to determine the most adequate measures by which the various problems of research and training can be carried out;

The important report on agriculture and agricultural survey made by Professor Edwin R. A. Seligman of the

Department of Economics, together with the publication by the Columbia University Press of his volume on The Economics of Farm Relief; the important papers presented by Professor Arthur F. Taggart of the Department of Mining and Metallurgy and his associates in the ore dressing laboratory at the meeting of Mining and Metallurgical Engineers in February, 1929; the steady flow of papers and reports, representing the results of advanced study and research, from the laboratories and clinical departments of the Medical School: the exceptionally notable speeches delivered on Alumni Day by Professors Dixon Ryan Fox of the Department of History, Howard Lee McBain of the Department of Public Law and Jurisprudence, Charles P. Berkey of the Department of Geology and Mineralogy, and President Joseph V. McKee of the Board of Aldermen; the address delivered in St. Paul's Chapel at the annual commemoration service on January 13, 1929, by Professor Edwin R. A. Seligman of the Department of Economics; the strikingly suggestive programs for research conducted by the Council for Research in the Social Sciences and the Council for Research in the Humanities, involving, as they do, the cooperation of several score of members of the University staff; the completion and publication of a most important volume by Professor Herbert W. Schneider of the Department of Philosophy, entitled Making the Fascist State, which has been widely hailed in Europe as well as in America as offering the best and clearest description of recent happenings in the government and social system of the Italian people; the scholarly paper on Wilhelm Dilthey, long time well-known Professor of Philosophy at the University of Berlin, written by Assistant Professor Horace L. Friess of the Department of Philosophy and printed in the Journal of Philosophy for January, 1929; impressive contributions to the literature of scholarship through the publication by Professor Ashley H. Thorndike, of the Department of English and Comparative Literature, of his volume entitled English Comedy, by Assistant Professor Richard P. McKeon, of the Department of Philosophy, of his volume on Spinoza, by Assistant Professor John H.

Randall, Jr., of the Department of Philosophy, of his book entitled Our Changing Civilization, by Professor Robert L. Schuyler, of the Department of History, of his book entitled Parliament and the British Empire, by Professor Ernest H. Wright, of the Department of English and Comparative Literature, of his volume on Rousseau, by Professor Raymond Moley, of the Department of Public Law and Jurisprudence, of his book entitled Politics and Criminal Prosecution. by Professor Henry L. Moore, of the Department of Economics, of his book entitled Synthetic Economics, by Professor Lynn Thorndike, of the Department of History, of his book entitled Science and Thought in the Fifteenth Century, by Professor Edmund W. Sinnott, of the Department of Botany. of his book on Botany: Its Principles and Problems, by Professor Henri F. Muller, of the Department of Romance Languages, of his book entitled Chronology of Vulgar Latin, by Professor Robert Herndon Fife, of the Department of Germanic Languages, of his book entitled Young Luther, by Associate Professor James W. Angell, of the Department of Economics, of his book entitled The Recovery of Germany, by Professor Richard J. H. Gottheil, of the Department of Semitic Languages, of his volume entitled Syriac-Arabic Glosses of Ishō-Bar-Alī, published by the Accademia dei Lincei, by Professor Cassius Jackson Keyser, of the Department of Mathematics, of his book entitled Pastures of Wonder, a series of challenging discussions of the problems of mathematics, science and philosophy:

The election of Dr. William Darrach, Dean of the College of Physicians and Surgeons, to be President of the Association of American Medical Colleges; the election of Professor A. V. Williams Jackson to be President of the American Oriental Society; the election of Professor James T. Shotwell, of the Department of History, to be Associate in the Section of History and Letters by the Belgian Académie des Sciences, des Lettres et des Beaux Arts; the election of Professor John L. Gerig, of the Department of Romance Languages, to be Honorary Member of the Italian Academy of Sciences and Letters of Genoa, and the appointment of Professor

Gerig to membership on several important international commissions, including that created at Oslo in 1928 by the International Congress of Historical Sciences to deal with modern literary history;

The award to Mr. Thomas H. Jones, of the School of Architecture, of first place in the competition for the design of a tomb for the Unknown Soldier at Arlington; the award to Professor J. Russell Smith, of the School of Business, of the gold medal given by the Harmon Foundation for his article on "Floods of the Mississippi River," the award being made each year to the author of an article appearing in an American publication which "stimulates constructive public opinion generally in social or industrial fields;" the award to Professor James T. Shotwell, of the Department of History, of the gold medal of the National Institute of Social Sciences in recognition of his labors on behalf of international peace; the very great honor paid to Dr. Henry H. Rusby, Dean of the College of Pharmacy, by the British Pharmaceutical Society in awarding him the greatly coveted Hanbury Medal; the distinguished honors conferred upon Professor Marston Taylor Bogert, of the Department of Chemistry, by the Government of Poland in recognition of his scientific work and the usefulness of his recent visit to that country; the award to Professor Bergen Davis, of the Department of Physics, of the medal of the Research Corporation for scientific research in physics, and his election to membership in the National Academy of Sciences; the award of the Chandler Medal to Mr. John Arthur Wilson, chief chemist of A. F. Gallun and Sons, Milwaukee, Wisconsin;

The honor done the University through the conferring of the honorary degree of LL.D. upon Professor John Dewey, of the Department of Philosophy, by the University of St. Andrews, and of the same degree upon Professor Herbert E. Hawkes, Dean of Columbia College, by the University of Rochester, upon Professor William F. Russell, Dean of Teachers College, by Colby College, and upon Professor Robert E. Chaddock, of the Department of Social Science, by the University of Wooster; of the Ironorary degrees of LL.D.

and Sc.D. upon Professor Ralph H. McKee, of the Department of Chemical Engineering, by the University of Maine and the University of Wooster, respectively; of the honorary degree of Litt.D. upon Professor Daniel Gregory Mason, of the Department of Music, by Tufts College; of the honorary degree of S.T.D. upon Professor Kenneth O. Crosby, of St. Stephen's College, by Western Theological Seminary; and of the honorary degree of LL.D. conferred upon Frank D. Fackenthal, Secretary of the University, by Franklin and Marshall College; together with the conferring upon Dr. Charles C. Williamson, Director of University Libraries, of the distinction of Chevalier of the Legion of Honor by the French Government;

The retirement, on June 30, 1929, of Frederick J. E. Woodbridge, Johnsonian Professor of Philosophy, from the Deanship of the Faculties of Political Science, Philosophy and Pure Science, which post he has held with so great distinction and whose duties he has discharged with so great ability since the retirement of Professor Burgess in 1912;

The addition to the teaching staff of a strong group of scholars, including Professors Elliott E. Cheatham (Law), from Cornell University, Armin K. Lobeck (Geology), from the University of Wisconsin, Thomas Thornton Read (Mining Engineering), formerly of the United States Bureau of Mines, Robert P. Hamilton, Jr. (Law), practicing lawyer, Eric Randolph Jette (Metallurgy), from New York University, L. Thomas Hopkins (Education), from the University of Colorado, Claus W. Jungeblut (Bacteriology), from Stanford University, Gravson N. Kefauver (Education), from the University of Minnesota, Ewing C. McBeath (Dentistry), practicing physician and dental surgeon, Lois H. Meek (Education), formerly Educational Secretary of the American Association of University Women, William R. Torgerson (Tropical Medicine), Leon A. Tulin (Law), from Yale University, Clifford L. Brownell (Physical Education), formerly State Director of Health and Physical Education at Columbus, Ohio, Philip B. Bucky (Mining), from Pennsylvania State College, Hans Smetana (Pathology), from the University of

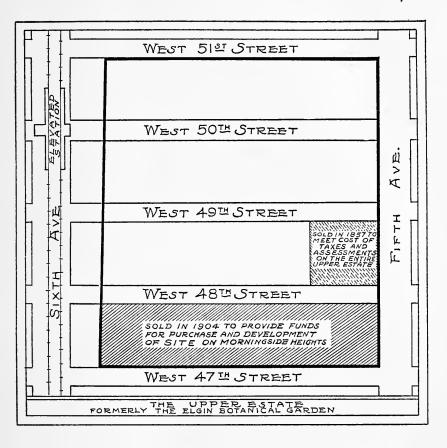
Vienna, Douglas M. Whitaker (Zoölogy), from Stanford University, Oskar Wintersteiner (Biological Chemistry), from Johns Hopkins University, Eleanor M. Witmer (Education, Associate Librarian of Teachers College), formerly Supervisor of Libraries, Denver Public Schools, and Carl Garabedian (Mathematics, St. Stephen's College), from the University of Cincinnati;

The appointment as Visiting Professors for the year 1929-30 of Professors Samuel Angus (Education), of the University of Sydney, Thomas E. Benner (Education), formerly Chancellor of the University of Porto Rico, F. Clarke (Education), of McGill University, Ellwood P. Cubberley (Education), of Stanford University, Miles A. Dresskell (Music Education), of State Teachers College, San Jose, California, Alfons Hilka (French), of the University of Göttingen, Ernest Horn (Education), of the University of Iowa, Vittorio Macchioro (Religion), of the University of Naples, Antoine Meillet (French), of the Collège de France, E. Allison Peers (Modern Comparative Literature), of the University of Liverpool, Giuseppe Prezzolini (Italian), Chief of the Information Section of the Bureau of Intellectual Coöperation of the League of Nations, and Henry Suzzallo (Education), formerly President of the University of Washington;

The promotion, following the adoption of the Budget, of twenty-nine Associates, Instructors and Lecturers to be Assistant Professors, of three Associates to be Clinical Professors, of seventeen Assistant Professors to be Associate Professors, of one Assistant Professor to be Professor, of one Clinical Professor to be Professor, and of fourteen Associate Professors to be Professors.

Perhaps no single act in the corporate history of Columbia exceeds in importance the settlement of the leaseholds of the property included in the Upper Estate, which was accomplished during the year and formally approved by the Trustees on October 1, 1928, and on December 3 following.

The two hundred and two parcels included in this property have been under lease, in accordance with a system adopted



by the Trustees three-quarters of a century ago, for a period of twenty-one years, with certain designated and limited rights of renewal for a following twenty-one-year period. The Upper Estate, once situated several miles from the inhabited portion of Manhattan Island, has fortunately for Columbia lain in the direct path of the development of the city of New York and along the most desirable line of that development. This fact has involved the Trustees in costs for taxes, assessments and other carrying charges that were very great, so great indeed that at one time they bid fair to strip the corporation of its ownership. Courage and determin-

ation prevailed, however, and every temptation to part with the property to meet current indebtedness or current expenses was resisted for many years. In the only two instances in which pressure of this sort was successful, it has long been obvious that a grievous mistake of business judgment was committed.

When these leaseholds began to expire in 1887–88, the value of property in that section of Manhattan Island had increased considerably and seemed likely to increase rapidly in the near future. The renewal of the leaseholds was accompanied by a long and stubborn dispute between the Trustees' Committee on Finance and the representatives of the leaseholders. In view of present conditions the documentary history of this controversy is interesting in the extreme. The settlement then arrived at was by divided vote of the Finance Committee and of the Trustees, and was generally regarded as a marked victory for the leaseholders over the University. The unhappy result was to deprive the University for a twenty-one-year period, at a most critical period of its development, of an increased income which it desperately needed.

At the expiry of the next twenty-one-year period conditions were less aggravated and the leases were renewed on terms more satisfactory to the University, although still in such fashion as to give to the tenants an equity which in some cases proved to be very large.

As the following period of twenty-one years drew toward its close, an entirely new situation presented itself and one vastly more favorable to the University than had been the case either in 1887–88 or in 1908–09. Fifth Avenue had by this time become one of the two or three best-known and most valuable sites for retail business in the whole world. The pressure upon that portion of the Island, first occupied for residence, exerted by business houses of one sort or another had become too strong to be resisted. The area between 42d Street on the south, 59th Street on the north, Lexington Avenue on the east and Broadway on the west, was plainly marked out to be an island of great value and of

incomparable situation. Here, if anywhere, must be the permanent site on Manhattan Island of the much-sought-after area devoted to that retail business of every sort which is characteristic of a great capital, and which has made famous the Bond Street of London, the Rue de la Paix of Paris and the Unter den Linden of Berlin.

After two or three years of careful study and prolonged negotiation, an agreement was arrived at by which the entire leasehold property of the Upper Estate was leased by one instrument to Mr. John D. Rockefeller, Jr., or to such corporation as he might organize, for a period of twenty-four years, with the right of renewal on designated terms for three additional periods of twenty-one years each, or eighty-seven years in all. The rental agreed upon will in years to come, after very heavy charges against it for advances of various kinds have been met, bring substantial relief to the Trustees in bearing their steadily increasing burden. The great advantage to the University from the arrangement which has been made comes not only through the increased rental which the Upper Estate will eventually produce, but from the fact that 202 separate leases, each with its individual problem. have all been superseded by a single lease for the entire property to a man distinguished for foresight, public spirit and generous regard for the highest public interest. To be associated with Mr. Rockefeller and to cooperate with him in the future development and improvement of an area so vital to the usefulness and the beauty of the city of New York, will be a constant satisfaction to the Trustees of today and to those who will follow them hereafter.

The Upper Estate is so called to distinguish it from the Lower Estate, that being the name of the property which the University owns in the lower part of Manhattan Island and which is described in this Report.

The Upper Estate has had a very interesting, indeed a dramatic, history. It constituted part of the common lands of the city and was purchased from the city in 1801 by Dr. David Hosack, then Professor of Botany and Materia Medica in Columbia College. This purchase included four plots on

the city map of that day, extending over about twenty acres divided into 256 city lots. It extended from what is now the north side of West 47th Street to the south side of West 51st Street, both inclusive, and from Middle Road, now Fifth Avenue, to a line about one hundred feet east of what is now Sixth Avenue. The price paid by Dr. Hosack was \$4,807.36 in cash and a quitrent of sixteen bushels of good merchantable wheat to be paid every May 1 in kind, or its equivalent in gold or silver coin. These quitrents were commuted and released in 1810 for \$285.71.

Dr. Hosack is one of the men whom Columbia delights to honor. He was in many ways a remarkable man and a real leader in the life of the city of that day. He was also an accomplished physician and an associate of Dr. Samuel Bard, easily the leading physician of his generation on this side of the Atlantic. Dr. Hosack was a voluminous author, and was frequently classed with DeWitt Clinton and Bishop Hobart as a leading citizen of the New York of his time. He was a leader in the movement to establish the College of Physicians and Surgeons in 1807, and one of the founders of the New York Historical Society. He was the physician called to attend Alexander Hamilton after his fatal duel with Aaron Burr.

When this extraordinary man became possessed of the Upper Estate he became possessed also of what must then have seemed a most extraordinary idea. He planned the development of a Botanical Garden, not by any means solely for public instruction and pleasure, but in order to grow and to study those plants which were known to be, or might be found to be, useful in the cure of disease. Dr. Hosack called his property the Elgin Botanical Garden, so named from the place of his family origin in Scotland. He speedily made it the best of its kind in the new world.

Like so many other able men, however, Dr. Hosack was in advance of his time. After expending more than \$100,000 on the Garden, Dr. Hosack found that his resources were exhausted. Various medical societies interested themselves

in the matter, and in 1810 they persuaded the Legislature of the State of New York to buy the Garden in order that it might be maintained by public authority as an aid to medical education. For this property the State paid Dr. Hosack \$74,268.75, being nearly \$30,000 less than his own expenditure upon it. It was Dr. Hosack's hope and expectation that the Elgin Botanical Garden would be permanently maintained as a public institution similar to the Jardin des Plantes in Paris.

It soon became clear that the time was not yet ripe for such an undertaking, and the Legislature looked about for ways and means to escape longer carrying the burden of the property. Just at that time other institutions which had sprung up in the State of New York, Union College at Schenectady, Hamilton College at Clinton, the College of Physicians and Surgeons and the Asbury African Church in the city of New York were, like Columbia, constantly petitioning the Legislature for aid. A lottery was authorized for their benefit, but in lieu of participation in the proceeds of that lottery the Trustees of Columbia College were persuaded to accept title to the property included in the Elgin Botanical Garden. This transfer was effected by the Laws of 1814, Chapter 120, and confirmed by the Laws of 1819, Chapter 19. By the first of the two acts named the condition was attached to the grant that the College establishment should be removed to the tract within twelve years, but by the second of the acts named this condition was removed.

The Trustees of Columbia College were not greatly pleased with the action of the Legislature, and would much have preferred to receive the sum of \$80,000 in cash, which was the value put upon the property at that time by the State of New York. To salve the wounded feelings of the Trustees, the Legislature, by the Act of 1819, made a grant of \$10,000 to them to be applied as the interests of the College might require. It was hard and discouraging work to hold the property and to maintain it for the next thirty or forty years. Time and time again the Trustees were sorely tempted to part with it in order to get funds with which to meet current

expenses. Foresight, sagacity, and untiring patience resisted, however, and the property was held and developed, often at great immediate sacrifice and embarrassment.

In 1823 the property was rented to a private individual for \$125 a year and taxes, and three years later to a new tenant for \$500 a year and taxes. This tenant, however, paid no rent and only \$118 was recovered by the College by the sale of his goods.

In 1838 the movement of population was such that the city began to open streets in this section. For the twenty-five years following the Trustees were called upon to make heavy annual payments for assessments to meet the cost of opening, grading and paving these new streets. It was in 1852 that the Trustees were first able to enter on the leasehold system, which has since prevailed.

In 1856 conditions in the lower part of Manhattan Island had become such that the removal of the College from the site on which it had stood for a century was imperative. So in 1856 it was voted to move the College from its original site on College Place to the block at Fifth Avenue and 49th Street. Plans were prepared for a building with a façade of 280 feet, a literally enormous structure for those days. The cost, however, was found to be prohibitive, and as alternative the Trustees purchased for "temporary quarters" the asylum property at Madison Avenue and 49th Street. There the College was removed in 1857, and following the financial depression of that year and the Civil War which quickly succeeded, conditions were so altered that there the College remained for forty years until its final removal to Morningside Heights in 1897. There is a tradition that the site of St. Patrick's Cathedral was chosen in order that, when erected, it might always look across Fifth Avenue into the quiet gardens of Columbia College on the other side! Verily, Tempora mutantur.

Unfortunately, the Trustees were not able to hold until the present time all the property originally included in the Elgin Botanical Garden. In 1857 sixteen lots at the easterly end of the block between 48th and 49th streets were sold to the Collegiate Dutch Church in order to meet the current

obligations of the College. In 1904–9 the entire block between 47th and 48th Streets was sold in order to make possible the extension and development of the new site on Morningside Heights. With these two exceptions the entire property once known as the Elgin Botanical Garden remains in possession of the Trustees, and is that indispensable part of Columbia's endowment known as the Upper Estate.

BIBLIOGRAPHY

Brown, Addison—The Elgin Botanic Garden: Its Later History and Relation to Columbia College.

(Printed for the author at Lancaster, Pa. by The New Era Printing Co., 1908.)

Hosack, Davis—Hortus Elginensis:
A Statement of Facts Relative to the Establishment and Progress of the Elgin Botanic Garden and the Subsequent Disposal of the Same to the State of New York.

(New York: Printed by C. S. Van Winkle, 1811.)

Howe, Marshall A.—New York's First Botanical Garden, in Journal of The New York Botanical Garden, March, 1929.

Stokes, I. N. Phelps—The Iconography of Manhattan Island, 1498–1909.

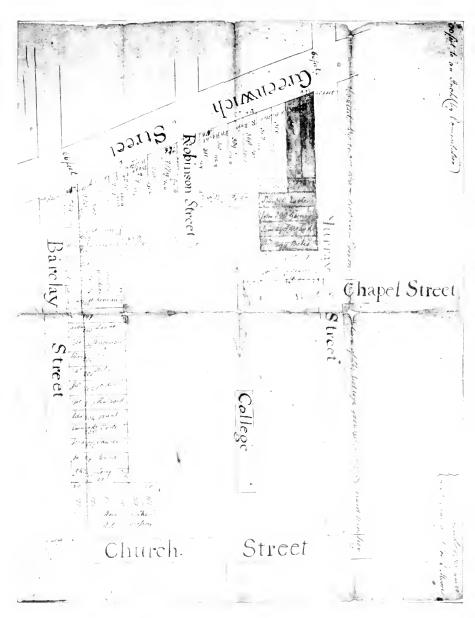
(New York, Robert H. Dodd, 1922–1928. Vol. VI: Index: Columbia College, p. 356, and Hosack, Dr. David, p. 440.)

To a description of the Upper Estate and an outline of its history there is naturally to be added a like summary sketch of that property known as the Lower Estate, which has been held by the Trustees for nearly 175 years. The Lower Estate was part of the land known as the King's Farm, or, during the reign of Queen Anne, as the Queen's Farm. The best historical sketch of the title to this property and the best account of the long-continued litigation which arose concerning it, is from the pen of Stephen P. Nash, a most influential and devoted Trustee of Columbia from 1868 until his death in 1898. Mr. Nash was Senior Warden of Trinity Church, an eminent member of the New York Bar, and for many years a representative of the Diocese of New York in its Standing Committee and in both diocesan and

general conventions. The story is one of great interest and not without its dramatic features and incidents.

It would appear to be Edward Hyde, Lord Cornbury, descendant of the great Earl of Clarendon and himself afterwards holder of that title, who, while Governor of the Province, gave expression to the opinion that a college should be founded there and that part of the King's Farm should be set aside for its endowment. The long delay in the establishment of the college, and the sharp controversy which preceded and accompanied its establishment, left the title to the King's Farm in the Corporation of Trinity Church. It was after the granting of the Charter to King's College on October 31, 1754. that a portion of the King's Farm as granted to Trinity Church in 1702 or 1703 was conveyed to the Trustees of the new college on May 12, 1755. This portion of the King's Farm, comprising the blocks between Barclay Street, Murray Street, Church Street and the North River, whose waters then extended almost to the west side of what is now Greenwich Street, constituted the original site of King's College and was occupied by the College from the time of the erection of the first building in 1757 until removal to the site at Madison Avenue and 49th Street just one hundred years later. In the year 1857, the property was cut in two by the opening of Park Place. At the present time the Lower Estate consists of the block bounded by Church Street, Park Place, West Broadway and Barclay Street, designated on the Land Map of the City of New York as Block 125, Lots 1-14; the block bounded by West Broadway, Park Place, Greenwich Street and Barclay Street, designated on the Land Map of the City of New York as Block 127, Lots 1-17; the block bounded by West Broadway, Murray Street, Greenwich Street and Park Place, designated on the Land Map of the City of New York as Block 127, Lots 18-39; and the part of the northerly portion of the block bounded by Church Street, Murray Street, West Street and Park Place, designated on the Land Map of the City of New York as Block 126, Lots 17-29.

Drawings and etchings of the College building as it stood on this original site are numerous and familiar. The building



THE LOWER ESTATE FROM A PLAN ATTACHED TO ONE OF THE EARLY LEASES



SCHERMERHORN EXTENSION ERECTED 1929

was of sufficient size to provide residences for the President and several of the professors, as well as for a number of students. Fortunately, there still lives the daughter of a professor of that day who was born in the old College building on the original site. So far as known, she is now the only surviving personal link between the Columbia College of the Lower Estate and the Columbia University of Morningside Heights.

The history of the development of that part of the city in which the Lower Estate is placed abounds in interest. was at one time thought that the west side near the Hudson River would become a residential section, while the east side along the East River would be given over to shipping and to business. The march of events soon disarranged this plan and disappointed these hopes, and the residential sections were steadily driven farther north, first on the west side and then on the east. Less than a hundred years ago, however, there were substantial and much-sought-after residential sections in what was once Oueen Street, now Pearl Street, in and about Franklin Square, and particularly in the neighborhood of what is now St. John's Place. Year by year the College lost its quiet detachment, and year by year it became more closely surrounded by business and by traffic. Indeed, it is surprising that the Trustees did not move the institution much earlier than they did. The cause of the delay is almost certainly to be found in their inability to meet the cost of a new and adequate building or buildings. It was this fact which led to the purchase of the asylum property at Madison Avenue and 49th Street as involving a far less capital outlay than sufficient and appropriate new construction would have done.

The University of today is bound to the Lower Estate, as to the Upper Estate, by strong ties of sentiment. Both pieces of property are closely interwoven with its history and its welfare, and both represent the most secure investment of the endowment of a great institution of public service.

BIBLIOGRAPHY

- Berrian, Rev. William—An Historical Sketch of Trinity Church, New York.
 - (New York: Stanford and Swords, 1847, pp. 101, 105, 371.)
- Dix, Rev. Morgan—A History of the Parish of Trinity Church in the City of New York.
 - (New York: G. P. Putnam's Sons, 1898–1901, Vol. I—p. 145; Vol. II—p. 293.)
- Hardy, John—Manual of the Corporation of the City of New York for the year 1870.
 - (New York: Printed by the Clerk of the Common Council, 1870, p. 761.)
- Hoffman, Murray—Treatise upon the Estates and Rights of the Corporation of the City of New York as Proprietors.
 - (New York: Edmund Jones & Co., Printers to the Corporation, 1862, Vol. I—pp. 116, 122; Vol. II—p. 180.)
- Nash, Stephen P.—Anneke Jans Bogardus, Her Farm and how It Became the Property of Trinity Church, New York. An Historic Inquiry.
 - (New York: Printed for the use of the Church, 1890.)
- —A History of the Title to King's Farm and the Litigation Thereon, in A History of the Parish of Trinity Church in the City of New York, edited by Morgan Dix, S.T.D., ninth Rector.
 - (New York: G. P. Putnam's Sons, 1898, Vol. II, p. 293.)
- Pine, John B.—Charters, Acts of the Legislature, Official Documents and Records of Colum-

- bia University, Revised and Enlarged Edition.
- (New York: Printed for the University, 1920, p. 73.)
- Schuyler, George W.—Colonial New York.
 - (New York: Charles Scribner's Sons, 1885, p. 362, footnote.)
- Stokes, I. N. Phelps—The Iconography of Manhattan Island, 1498–1909.
 - (New York: Robert H. Dodd, 1922–1928. Vol. VI: Map—Pl. 84 B-a and Original Grants and Farms, p. 79. Also Index: Columbia College, pp. 356–57; King's College, p. 358; King's Farm, p. 419.)
- Valentine, D. T.—Manual of the Corporation of the City of New York for the year 1847.
 - (New York: Casper C. Childs, 1847, p. 293.)
- —Manual of the Corporation of the City of New York for 1852.
 - (New York: George P. Putnam, 1852, p. 292.)
- -Manual of the Corporation of the City of New York for 1853.
 - (New York: Printed by the Clerk of the Common Council, 1853, p. 436.)
- —Manual of the Corporation of the City of New York for 1857.
 - (New York: Printed by the Clerk of the Common Council, 1857, p. 268.)
- —Manual of the Corporation of the City of New York for 1860.
 - (New York: Printed by the Clerk of the Common Council, 1860, p. 547.)

In a paper on the origin and early history of Columbia College, read before the New York Historical Society, April 5, 1887, George H. Moore, Superintendent of the Lenox Library, makes this statement relative to the name Columbia College:

It bore the name of King's College almost thirty years, during the last eight of which it was in disastrous eclipse, in the midst of the confusion of civil war—out of which it emerged with the new name of Columbia, a word and name then for the first time recognized anywhere in law and history. The tardy justice to the memory of the great discoverer embodied in that name found its first legal recognition in the statute of New York, passed on the first of May, 1784, which confirmed and amended the royal charter granted in 1754, and declared "that the College within the City of New York heretofore called King's College be forever hereafter called and known by the name of Columbia College."

Previously, in December, 1885, Dr. Moore had presented a communication to the Massachusetts Historical Society in which he discussed the origin and use of the name Columbia at some length. In that paper he points out that the name is associated with the period of the Revolution and the years immediately following, although it was creeping into use some time earlier. Dr. Moore ascribes to Chief Justice Sewall of Massachusetts the first use of the word Columbina, as the name for the new world. This appears in his *Phaenomena* Quaedam Apocalyptica, first published in 1697 and later in a second edition in 1727. It was, however, Nicholas Fuller, an Oriental scholar of repute and a critic of large authority, who lived from 1557 to 1626, who was the first Englishman to insist that it was Christopher Columbus whose name and fame should be recognized in giving a name to the new world.

This paper by Dr. Moore contains much interesting information and many helpful citations. From these the fact appears that what is probably the very first use of the name Columbia is found in those celebrated mock reports of debates in Parliament that were printed in the newly established *Gentleman's Magazine*, which led the House of Commons on April 13, 1738, to denounce the publication as a high indignity to, and notorious breach of, the privileges of that House.

In the very first number of these reports there is a reference to "Conquests and Acquisitions in Columbia, which is the Lilliputian name for the country that answers our America." This passage Dr. Moore regards as the very first appearance anywhere of the name Columbia as the designation of America.

The honor of the introduction of this name in the new world itself is given by Dr. Moore to an inhabitant, though not a citizen, of Massachusetts—a negro woman, a native of Africa, and a slave at the time, the property of Mr. John Wheatley, a citizen of Boston. On October 26, 1775, this negro woman, Phillis, addressed a poem of forty-two lines to General Washington, who had just taken command of the Revolutionary Army. This poem was written in 1775 and was acknowledged by General Washington in a note dated at Cambridge, February 2, 1776. It was generally believed that in that poem, which was printed at Philadelphia in the Pennsylvania Magazine for April, 1776, the name Columbia was used for the first time on this continent.

It appears, however, from a paper on the name Columbia, printed in the New England Historical and Genealogical Register for July, 1886, written by Albert H. Hoyt of Boston, that yet earlier instances of the use of the name Columbia may be found. Mr. Hoyt points to its use in a volume of elegiac and complimentary poems in English, Latin and Greek, composed mostly by graduates of Harvard College in 1761. This work was undertaken at the suggestion of Governor Bernard in commemoration of George II, whose death had occurred in the preceding year, and in congratulation of George III on his accession. Mr. Hoyt refers to the volume containing these poems as "perhaps the most meritorious literary work produced in America in the eighteenth century." Of the thirty-one poems contained in the volume, the twenty-ninth has these lines:

Behold, Britannia! in thy favour'd Isle; At distance, thou, Columbia! view thy Prince.

It is believed that the writer of this poem was Thomas Oliver, Lieutenant Governor of Massachusetts in 1774, and later a loyalist refugee.

Mr. Hoyt cites another instance of the use of the name Columbia in a poem published in the Massachusetts Gazette of April 26, 1764, which is entitled "The Lamentation of Harvard." The poem, whose author is unknown, was inspired by the destruction by fire of Harvard Hall and the College Library. In it these lines are found:

Why could ye not, the fam'd Museum spare, Unrivall'd in Columbia.

Yet, again, there is a poem printed in the Boston Gazette of February 13, 1775, written by Mrs. Mercy Warren, which uses the word Columbia as descriptive of the North American continent. Still other like uses of the word, always in verse, are assembled by Mr. Hoyt. It is plain, therefore, that at the period of the Revolution the word had become entirely familiar, at least to men and women of letters.

The name quickly came into general use, and the well-known poem of Timothy Dwight gave it wide currency. His lyric beginning

Columbia, Columbia, to glory arise, The Queen of the World and the child of the Skies

was probably written during the period when he was chaplain in the Revolutionary Army, which service he began in October, 1777. Undoubtedly the popularity of this poem made the new name familiar to a wide public and gave it a currency which quickly led to its use in many ways and in many relationships. Philip Freneau, the New York Huguenot, who has been called the Tyrtæus of America, gave still larger currency to the use of the name, particularly in his "Dialogue between His Britannic Majesty and Mr. Fox, supposed to have passed about the time of the approach of the Combined Fleets of France and Spain to the British Coasts, August, 1779," which was first published at Philadelphia in the United States Magazine in December, 1779.

It is obvious, therefore, that when the time came for the Legislature of the State of New York to deal with King's College and its charter, the name Columbia was well known. So far as any record has been found, the first time the word

appeared in legislation was in the law of the State of New York giving the name of Columbia to King's College, passed May 1, 1784. Two years later the Legislature set off a new county from Albany County and gave it the name Columbia.

Verse makers of various degrees of excellence were quick to use the name in one form or another in the literature both of France and of England. "La Colombiade," a poem dedicated to the Pope by Madame Duboccage, appeared in 1758; "The Columbiad," an epic poem in twelve books by the Rev. James L. Moore, Master of the Free Grammar School in Hertford, Herts, in 1798; "The Columbiad," a poem on the American war, in thirteen cantos, by Richard Snowden, in 1795; "American Liberty," a poem by Philip Freneau, in which the name Columbia is used, in 1775; and "The Columbiad," a poem in ten books, by Joel Barlow, in 1807.

During the War of Independence there were in the navy of the new country two warships named Columbia, one a Massachusetts ship and one a Pennsylvania ship. From that time on the use of the name was very common. It is of record that when Washington arrived in New York on April 24, 1789, to be inaugurated as first President of the United States, among the vessels that accompanied him from Elizabethtown Point was the schooner Columbia, of which Philip Freneau, the poet, was Captain.

Of the earliest foundations for higher education in the new world there are, then, two, Harvard and Yale, which took their names from benefactors; two, the College of Philadelphia and the College of New Jersey, which took their names from the colonies in which they were placed; one, William and Mary, which was named in honor of the reigning sovereigns; and one, which having been first named in honor of the monarch, found its name changed after the Revolution to one which had its origin in the literature of the period.

BIBLIOGRAPHY

Barlow, Joel—The Columbiad, a poem.

(Philadelphia: C. and A. Conrad & Company, 1807, 454 pp.)

Duboccage, Madame—La Colombiade, ou La Foi Portée au Nouveau Monde, Poëme, En Dix Chants Dedié au Pape. (Londres: C. G. Seyffert, 1758.)

Dwight, Timothy—Columbia, a poem. (Anonymously printed in the Boston, Mass., Independent Chronicle and Universal Advertiser, October 26, 1780.)

Freneau, Philip—American Liberty, a poem in Poems of Philip Freneau, edited for the Princeton Historical Association by Fred Lewis Pattee, Volume I, pp. 142–52.

(Princeton, New Jersey: University Library, 1902.)

Gentleman's Magazine and Historical Chronicle—Volume VIII, for the year 1738, p. 285. (London: Edward Cave, 1738.)

Hoyt, Albert H.—The Name Columbia—New England Historical and Genealogical Register, Volume XL.

(Boston: Published by the New England Historic Genealogical Society, 1886, pp. 310-13.) Moore, George H.—The Origin and Early History of Columbia College, a paper read before the New York Historical Society, April 5, 1887.

(New York: Printed for the author, 1890, 46 pp.)

—The Name Columbia, communication presented to the Massachusetts Historical Society, December 10, 1885, in Proceedings of the Massachusetts Historical Society, 1885–1886, pp. 159–65.

(Boston: Published by the Society, 1886.)

Moore, Reverend James L.—The Columbiad, an epic poem on the discovery of America and the West Indies by Columbus, in 12 books.

(London: F. & C. Rivington, 1798.)

Snowden, Richard—The Columbiad: or a Poem on the American War, in 13 cantos.

(Baltimore: W. Pechin—probably 1800.)

[An earlier edition was printed in Philadelphia by Jacob Johnson & Co. in 1795.]

Wheatley, Phillis—Poems and Letters, edited by Chas. Fred. Heartman (New York: printed for the Editor, 1915, p. 51).

As the nation grows and develops both extensively and intensively and as it both widens and deepens the economic and industrial foundation on which the life of the people rests, it becomes increasingly important firmly to establish the academic career and to protect it in every way that is practicable. From time immemorial it has been a general habit to look

upon scholars as the praiseworthy and self-sacrificing servants of the public whose wants were so few and so meager that they might well be supplied by the most modest of remunerations. The practical men who were once wittily and truthfully described by Disraeli as those who "continue to practice the mistakes of their predecessors," have looked upon the economic rewards of life, as well as life's comforts and luxuries, as belonging exclusively to themselves. The scholar has conventionally been commended, often respected, more often pitied, but rarely paid. If a scholar is fortunate enough to write a book which the unlettered classes will widely read, he receives a substantial income for a time from royalties on its sale. If the man of science comes upon a new fact or a new principle which can be applied in gain-making fashion, he, too, may receive a more or less inadequate reward for the results of his research. These, however, are the accidents of the academic career and not of its essence. It is imperative if a free and liberal democratic society is to continue and to progress and to rise above the plane of mere contented and sumptuous animal existence, that the scholar and the man of science, together with the artist, shall have open to them a career which will not of necessity involve deprivation of practically all of the comforts and material satisfactions of life.

The Trustees of Columbia University have for two generations past done everything which the means at their disposal would permit to advance the academic career and to sustain it on a constantly higher level of opportunity and satisfaction. To strengthen the academic career and to make it still more attractive to young men and young women of good ability and fine ambition, means doing three distinct things, as well as doing them quickly and well.

First, entrance upon the academic career must be made far more inviting than it now is. When a youth, fresh from the stimulus of the laboratory of a great man of science or from the seminar of a distinguished philosopher, historian, economist or man of letters, now weighs the choice of his future career, he must be ready, unless already economically independent, to face the fact that, at the outset of his academic service if

that be chosen, and probably for some years to come, perhaps as many as ten or fifteen, he must postpone marriage, turn aside from the temptation to travel, live in extremely modest circumstances and content himself with half the stipend of a junior clerk who has gone straight from the elementary school or from the high school to a business house. To speak bluntly, this is a preposterous situation. The youth who has devoted seven or eight years, first to college and then to university study, and who is judged competent and of promise to enter the academic career, should not be faced with any such conditions. A first task, therefore, is to raise sharply the compensation of those who choose the academic career when they first enter upon it, so that the limitations now put upon them and the embarrassments to which they are now subject may be as few as possible.

In the second place, the academic career should carry with it a freedom which is as large as possible. The scholar more than any other man should be a self-determining person. He should be free to choose what he wishes to do and the way he wishes to do it, and he should be given quickly and without constant appeal all those assistances, equipments and apparatus which are needful to his work. The university which is conscious of its calling looks upon every form of public service that a scholar can render as academic service. It does not distinguish between the direction of a laboratory, the conduct of a seminar, or the publication of a notable volume on the one hand and those constant and invaluable services which scholars may and do render to government, to industry, to transportation, to finance, and to public undertakings of every kind and sort, on the other hand. The geologist who works for the government of the United States on the problem of Boulder Dam is doing academic work and truly serves, as well as represents, his university. The same is true of the scholars who are summoned by governments of provinces and of states to give counsel and aid in studying and revising their systems of taxation and finance and of general administration. Instances might be multiplied indefinitely farther to illustrate the principle that the university is a living organism of public service, of course attracting to itself great companies of ambitious youth and guiding them, but also constantly serving the public interest in countless other ways.

In the third place, the academic career should offer to the scholar and man of science who has passed his period of probation and definitely established himself in reputation and in service, an emolument greatly in excess of that which is now usual for him. Even with the best that can be done in this regard, the scholar will still fall far short in his scale of compensation of that which is due him because of the quality of his work in society and because of its vital importance.

Given these three important conditions together with established protection for old age or unexpected disability, and the academic career will not only attract an increasing number of ambitious, cultivated and splendid youth, but one of the heaviest of burdens will be lifted from the backs of faithful and devoted men and women who now literally stagger under what they are called upon to bear.

A scale of compensation that would be suitable for Columbia University to establish and that ought to be established by the aid of generous benefaction without any delay, is this:

Professors, arranged in three groups according to service, distinction and academic usefulness \$12,000, \$15,000, and \$18,000

Associate Professors, arranged in two groups according to service, distinction and academic usefulness \$ 9,000 and \$10,000

Assistant Professors, arranged in three groups according to service and academic usefulness \$ 5,000, \$6,000 and \$7,500

Instructors, arranged in three groups according to service \$ 3,600, \$4,200 and \$4,800

Assistants, arranged in two groups according to service \$ 2,000 and \$2,400

To establish this scale of academic compensation would require an addition to the present budget of almost exactly \$1,800,000 or, in view of the constant increase in number of the academic staff, of perhaps \$2,000,000. Important and press-

ing as physical needs are, there can be no question that to lead the way in putting the academic career in the United States on so reasonable a plane of comfort and satisfaction as this, would be an event of national importance. It would set an example that would literally have to be followed.

In an address before the Phi Beta Kappa Society of Vassar College a number of years ago¹, the educated man was described as possessing five characteristics, no matter what might be the form and the content of the knowledge that he had acquired: correctness and precision in the use of the mother tongue; refined and gentle manners, which are the expression of fixed habits of thought and action; the power and habit of reflection; the power of growth; and efficiency, or the power to do. There is no reason to alter the statement then made, but there is abundant reason to lay a new and insistent emphasis upon one of these five characteristics, namely, refined and gentle manners, which are the expression of fixed habits of thought and action.

There is an odd but widespread opinion, found not only in the United States but in other lands as well, that distinction of person or manner or dress is somehow out of place in a democratic society. There is no objection to wearing knickerbockers for golf, but there is deep-rooted objection to wearing knee-breeches at a formal state function where gentlemen have appeared in this costume for generations. Those who are of this mind believe, or assume to believe, that democracy either approves or smiles upon dirt, vulgarity of speech and of manner, slovenliness of dress, and avoidance of anything which might appear to be refined, gentle or elegant. If this fact be doubted, observation of a crowd in motion under almost any circumstances will furnish convincing evidence.

The fact of the matter is that democracy, for its fullest flower, requires distinction of manner, of speech and of dress more than does any other form of society. In that popular form of impossibility which is described as the leveling process, there is an alternative mode of procedure—men may attempt

¹Butler, Nicholas Murray—The Meaning of Education: New York, Charles Scribner's Sons, 1915. (Five Evidences of an Education, pp. 99-116.)

to level themselves up or they may attempt to level themselves down. If they choose to attempt to level themselves down, democracy will sooner or later disappear into ochlocracy, and this is always the forerunner of a new despotism. The more serious and seductive of the two powerful attacks which are just now being made upon the foundations of democracy finds its strength in the conviction that democracy as it has presented itself in the western world cannot escape ochlocracy, which is merely mob rule.

The cruel subterfuge of false democracy has misled millions upon millions and has closed their eyes to the fact that a democratic system which cannot produce an aristocracy of its own for its ornament and its service is certainly doomed. After all the changes and happenings of a century, during which time the democratic system has exhibited its power in many different forms and in every part of the world, there has been no wiser or sounder description of its meaning than was given by Mazzini when he said of democracy that it is "the progress of all through all under the leadership of the best and wisest." Democracy's aristocracy is not one of birth, of inherited privilege, or of wealth, but it is one of character, of high intelligence, of large knowledge, of zeal for service, recruited from the bosom of democracy itself. Under the operation of the law of liberty, true democracy will open the way to the upbuilding of an aristocracy that is all its own as well as its chiefest ornament.

There is no such person as the average man. That phrase is a figure of speech which deludes both him who uses it and him to whom it is addressed. It reflects that statistical method which informs without enlightening, because it puts in the background those extremes, particularly in human relationships, concerning which it is most important of all to have knowledge and to take account. Every real man is some particular man. To say that there are many like him ought to excite not admiration but suspicion. Those ingenious and untiring persons who play upon popular ignorance and popular passion in order to gain for themselves popular favor are not in the least removed from that sovereign people

whom Juvenal saw praying for but two things, Panem et Circenses. So long as the stomach is provided for and amusement is ample and cheap, what need matter the things of the mind, the delights of scholarship, and the unequaled pleasure of moving in the upper ether of the spiritual experience of the race? It is little wonder that Fascism finds earnest and highly intelligent expounders when the antics of false democracy are to be seen on almost every hand.

The cure for false democracy is true democracy. It is not. and cannot be, the return to despotism under any form, however attractive that may appear to be. Privileged individuals and privileged classes sooner or later become preying individuals and preying classes. In true democracy the path must lie open from the bottom to the top, and the absurd notion that all men can be made alike and all put on one and the same level of competence, authority and possession, be abandoned as the hopeless folly which it is. Human equality means equality of consideration, equality of treatment, equality of opportunity; it has never meant, and by no thoughtful man has it ever been supposed to mean, sameness of any kind. Indeed, to treat all human individuals the same is to treat them unequally. Equality of treatment means, not the same treatment for all but a like manner of treatment for all. The parable of the laborers in the vineyard throws light on this distinction.

Still another hallucination of false democracy is that a majority has rights and that by the voice of a majority matters of principle are finally determined. This is utter nonsense. No majority has any rights whatever. The individual has rights and a majority has privileges. It has the privilege of determining who shall be chosen to serve it in public place, and it has the privilege of determining what policy or course of conduct shall next be entered upon, but it has and can have absolutely nothing to do with the determination of true or false, right or wrong, moral or immoral, beautiful or ugly. A majority in Central Africa might vote that the hut of a savage was more beautiful than the Parthenon or St. Peter's or Westminster Abbey, but this would not alter the fact

that the hut of the savage would remain squalid and ugly. Standards of excellence, and excellence itself, are always set and revealed by the individual; it is inconceivable that either should be set or revealed by a majority vote of those who know nothing of what it is all about.

It is when one leaves false democracy behind and catches the vision of true democracy that the importance of manners becomes clear. Manners, to be really such, must not be pretense or only superficial. They must be built upon and become the outgrowth of fixed habits of thought and action which are themselves grounded in character. Care of one's person and dress, care of one's speech and bearing, care of one's deference and respect to age or to real distinction, and that concern for the preferences, the comfort, and the satisfactions of other people which Lord Chatham described as benevolence in trifles—these are the important things. Knowledge is power, to be sure, but how right was Lord Chesterfield when he said that "manners must adorn knowledge and smooth its way through the world." Moreover, good manners breed good taste.

Despite the very marked development in modern language instruction throughout the schools and colleges of the United States, these languages as subjects of study have Modern never quite outgrown the position originally as-Languages signed them as extracurricular activities. was a time when music and drawing, together with French and German, were frankly classed and treated as outside and in addition to the ordinary and normal program of study. Although modern language instruction was offered in Columbia College at a very early period in its history, it disappeared entirely, and even as late as 1880 no undergraduate was offered instruction in French, Italian or Spanish, although he might get certain very limited instruction in German as a purely optional subject, if he chose to do so.

Even today the effect of this point of view and this habit of thinking persists throughout the country and offers a stumbling-block of no inconsiderable size and importance in

the path of progress toward making genuine knowledge of modern European languages more widespread among Americans. It often excites surprise in Europe and in South America. and justly so, that even American university teachers, including scholars and men of science of consequence, who can read French or German or Italian or Spanish more or less stumblingly, are wholly lacking in the capacity to carry on conversation in any one of those tongues or to make themselves agreeable and interesting in a European or South American drawing-room. This lamentable condition is perhaps in the way of being remedied, but that complete remedy will take some time is very obvious. There is no reason why the educated and the cultivated man should not have speaking knowledge of at least two of the four chief modern European languages. To attain such knowledge is not difficult, and the addition which it makes to one's pleasure, to one's comfort, and to one's satisfaction is literally enormous. The English-speaking American is pretty generally of opinion that the world is his oyster and that there is no reason why he should concern himself to master the spoken language of another people whom he persists in looking upon as foreign or alien, despite all the teachings of history and all the interpenetrations of literature, science and philosophy.

Just now modern language teaching at Columbia is being steadily strengthened and its practical character increased. The mere knowledge of the grammar of a foreign language, together with some survey of its literature, is not sufficient. There must be command of it for spoken use. Among other things, such command would speedily make a breach in that wall of prejudice which is so constantly painted to look like patriotism. The Maison Française, the Deutsches Haus, and the Casa Italiana are admirable agencies well adapted to inspire and to assist in increasing and deepening knowledge not only of the literatures and the institutions, but of the languages, of France, of Germany and of Italy. Apparently it will not be long before a Casa Hispánica and a Japan House take their place by the side of those excellent institutions just named. The success of the undertakings which these build-

ings envisage will be in large part measured by their ability to stimulate teaching scholars and students alike to gain a capacity to speak and to write the languages of the peoples with whose civilizations and institutions these buildings serve to bring us in constantly closer relationship.

The contemporary literature relative to the American college, its status and its problems, contains multiplying evidence of the fact that what President Educational Barnard and Professor Burgess saw to be true Reconstruction in 1880, quite fifty years ago, has now made itself evident to large numbers of educational administrators and college teachers. It was their contention, quickly accepted by Columbia and made a fundamental principle of its development, that if the undergraduate student was in the later years of his college course to be permitted freely to choose studies that he would pursue, there could be no good reason why he should not be permitted to choose those studies that were fundamental and introductory to any future professional course of study upon which he proposed to enter. If the college senior was to have opportunity to study zoölogy, what possible reason could be given why he who desired to become a student of medicine should not find his way to the laboratory and museum of comparative anatomy? The result was the introduction of the so-called combined college and professional school course, which has since its introduction played a very large part in bringing about a reconstitution and reconstruction of the program of study in the American college. The seeds of the junior college movement were to be found in the Columbia combined course, and that junior college movement will in time prove itself, is indeed already proving itself, capable of meeting a very real need. Hard upon its heels comes the movement to organize and identify the junior high school and that, too, has a useful future beyond any question.

All this means that there is a complete breaking up of the old formal division of the process of instruction into an elementary, a secondary and a higher period of study. Under present-day conditions there is need of smaller and differently

organized units, and the junior college together with the junior high school furnish these. The elementary school course remains wasteful in the extreme. Much more and much better could be accomplished if elementary school teaching were treated as the very simple process which it is, and not analyzed and re-analyzed into a hundred hypothetical constituent elements, all of which perplex the teacher and mystify the child. Herbart has many sins to answer for. An elementary school program in arithmetic which requires a full year to teach all that is involved in the numbers from one to ten inclusive, is something considerably below the plane of a joke.

Through all these changes, chances and tribulations Columbia College has fortunately kept its head. The Faculty. under the inspiring and sagacious leadership of Dean Hawkes. attacks problem after problem with openmindedness, keen insight into the needs and ambitions of youth and the finest possible spirit of cooperation. The Report of the Dean of Columbia College for the past year contains a most interesting statement and interpretation of the policies of the Faculty and of the success which is attending them. Every word of that Report should be read and pondered not only by college teachers, but by thoughtful parents who are really concerned for the sound education of their children. The Warden of St. Stephen's College in his Report discusses other aspects of this same topic in a manner that is full of suggestion. Plainly the American college is on the march, and according as it is conscious of its destination and of the best means to reach that destination, will its record of usefulness be written in the years just ahead of us.

It is a matter of interesting speculation as to what may be the future, a generation from now, of those separate colleges which, because of their separateness, are not members of the educational system of a university. It is likely that the example of St. Stephen's College will be followed in not a few cases as the years pass, and the separate college while retaining the advantage of its separateness will gain the enormous advantage of university membership by becoming incorporated in the educational system of a neighboring university

of high rank. The junior college should take care of an increasing proportion of those young men and young women who now press for admission to the freshman class of the American college each autumn. Thousands of these young men and young women may get in and from the junior college all the systematic instruction which they require and of which they can take full advantage. The rapidly multiplying opportunities for adult education will do the rest and will assist in keeping them intellectually alive and active throughout their entire lives.

After all these changes shall have taken place, however, there will still be room for a certain number of separate colleges going their own way and doing their own work in that happy and fortunate field which one may still describe as the Humanities. Homo sum; humani nihil a me alienum puto, said Terence. To realize this grateful maxim will be the continuing and the richly rewarded task of the separate college as it will be always a large part of the task of the university college.

The separate college, which understands its problem and its place in the nation's system of higher education, will refrain from any attempt to build up within itself a scheme of graduate or university work. Any such policy of necessity involves, by reason of the large expenditure incurred, a weakening of the resources which should be unimpaired for truly undergraduate or college work. Moreover, true university opportunity is now offered in the United States in at least a dozen different and widely separated institutions. is to one of these that the graduate of the separate college should turn if he or she desires to go forward in a career of scholarship. It is at these university centers that have been built up, or are building, the vast equipment of libraries, laboratories and other aids to advanced study which are an absolute necessity to its proper conduct. Precisely the same reasons which took American college graduates who were looking forward to a career of scholarly endeavor to the German universities during the last third of the nineteenth century will take like-minded graduates of American colleges to either

an American or a foreign university in this part of the twentieth century. Just as universities will differ among themselves in respect to what they have to offer in different fields of knowledge, so the universities as a whole will differ widely from those separate colleges which are giving closest, most devoted and most successful attention to their own very important and highly desirable business.

In order to think straight upon these subjects it is essential to look carefully to one's terminology and nomenclature. There are many kinds and divisions of instruction and many kinds and divisions of training, but there is only one education. Professional instruction, vocational training and many other groups and classifications exist and rightly so; but they are something quite distinct from education, and education is something far deeper and broader and higher than any one of them, or than all of them taken together. Loose and unclear thinking has been promoted and multiplied by the careless and unscientific use of the word education, just as it has by the careless and unscientific use of the word university. To get light upon present-day problems in education and to grasp their social, political and moral significance, it is essential that fundamental terms should be understood in their just and proper definitions and not permitted to drift into careless and uncritical use.

In the last Annual Report some considerations were presented concerning lawlessness and the law and the duty of the University in regard thereto. The year that has passed has seen constant and continuing discussion of this subject throughout the United

States. Signs are appearing that the real facts in relation to this vitally important matter are beginning to be understood.

this vitally important matter are beginning to be understood, and that an increasing number of persons are coming to see that in the search for means to remedy a grievous situation the place to begin is not with lawlessness but with law itself. Lawlessness is easy to observe, to understand and to rebuke, but law presents many more and subtler difficulties and it is here that the seat of the trouble is to be found.

As was pointed out a year ago, not everything which comes

clothed in the garb of law is really law. To get at law one must go behind constitutions and statutes and judicial decisions and find out what public opinion has to say about any or all of these. Law is only one mode and method of social control, and there are at least two other modes which are superior to it. The first is the conduct and manners of a gentleman, and this includes the second, which is conduct according to the highest standard of morals. Those persons whose lives are guided and fashioned by either of these modes of social control are on a much higher plane than if they were merely law-abiding.

This is one reason why the widely heard cry for law enforcement is so meaningless. It usually reflects merely the demand of the fanatic for the punishment of violators of some particular law in which he is interested. If law enforcement meant the enforcement of all law, then the social order, at least in the United States, would quickly be afflicted with paralysis, partly because of the absurdity of many of these laws and partly because of their open conflicts with each other. It ought to be clear then that the legalistic demand that all law be obeyed and respected because it is the law is the reverse of reasonable. Free men from the beginning of time have followed the contrary course, and few things are more certain than that they will continue to do so. Thomas Jefferson, Ralph Waldo Emerson and Abraham Lincoln were all of this mind, and surely theirs are names to conjure with.

There is no ground whatever for the conventional statement that violation of one law, or disrespect for it, leads to the disregard of all law. The contrary is the case. Lawlessness is selective, and unbroken human experience goes to prove that a man may hold one law in utter contempt and yet have high respect for the great body of law of the land in which he lives.

There is a higher lawlessness and a lower lawlessness. The higher lawlessness is essentially law-abiding, and the law by which it abides is far higher as well as far more fundamental than any casual or temporary statute can possibly be. Much of this higher and deeper law finds its basis in morals, and much

of it is firmly embedded—or was until recently firmly embedded—in the Constitution of the United States.

The lower lawlessness is plain, ordinary selfishness, violence and greed. No progress will be made in illuminating this entire field of lawlessness until discrimination is made between that lawlessness which is law-abiding and that lawlessness which is law-breaking. In his First Inaugural, President Grant made the oft quoted statement that "I know no method to secure the repeal of bad or obnoxious laws so effectual as their strict construction." But he was quite wrong. That is not the method by which bad or obnoxious laws are gotten rid of. Not one in a hundred of such laws is ever repealed. They are kept upon the statute book and simply allowed to die a quiet death and to pass into that state which President Cleveland so graphically described as one of "innocuous desuetude."

It is well that this discussion should go on, and that more and more men should come to see how tangled the situation really is and how difficult it will be to find escape from it save by a pretty complete reconstruction of prevailing popular conceptions of law and lawlessness. The purely legalistic mode of approach and the purely legalistic point of view will get us nowhere. To make real progress there must be such searching examination of the foundations and content of our whole legal system as that upon which the Faculty of Law has entered so energetically.

When one observes the defiance of the Constitution for a decade by the Congress of the United States in order that it may protect a part of its present membership, or the constant breaking over of its constitutional limitations by the United States Senate in order to gratify its whims or to flatter its vanity, and when one observes the courts themselves whittling away at the foundations of the law and government from fear of noisy and pestilent groups, and yet all of these all the while proclaiming the supremacy of law and demanding law enforcement, one recites to himself these words of John Bunyan:

Some things are of that nature as to make One's fancy chuckle, while his heart doth ache.

On October 12, 1928, the removal of the College of Physicians and Surgeons and of the Presbyterian Hospital to the new Medical Center having been accomplished, these Medical buildings were formally dedicated to their high use Center with worthy and distinguished ceremonial. It was so long ago as May 16, 1769, that Dr. Samuel Bard, Professor of the Practice of Medicine in King's College and the most eminent physician of his day in the Colonies, in his discourse upon the duties of a physician delivered at the annual commencement of King's College, made his exposition of the need of a public hospital in alliance with the College to the end that medicine might be properly taught, the public health better conserved, and the study of disease more systematically and more competently carried forward. So long did it take, almost one hundred and sixty years, to reach a goal then so clearly and so persuasively defined! So long did it take to break down the barriers erected by personal, professional and institutional rivalry, jealousy, and selfishness, and to call forth the needed benefactions to accomplish so commanding a purpose and to reach an end so obviously in the public interest!

The Annual Reports for the last twenty-six years past abound in discussions of the Medical Center, in pleas for its hastening and in arguments for its obvious necessity and its effectiveness when built. The Annual Report for 1903 [pp. 34-41] sets out in detail a program for the improvement of the Medical School with a view to bringing it in all respects under the influence of university standards, university methods and university ideals. It was then pointed out that a university hospital or a hospital under university control, where the clinical instruction and the section teaching at the bedside could be carried on under the most favorable conditions and where every facility for research would be at hand, was an absolute necessity. Year after year this exposition and this argument were repeated and amplified. In 1910 the statement was made that since within a short generation the methods of medical instruction and research had been literally revolutionized, that haphazard relationship between

medical school and hospital which had been quite common in the United States must now give way to a relationship that is precise, definite, and so secured and administered as to give to the medical school complete and permanent control of the hospital staff as well as of the clinical facilities for teaching and research which the hospital affords. In 1911 it was fortunately possible to record the fact [pp. 36-39] that during the year a formal agreement had been entered into between the University and the Presbyterian Hospital which indicated that the solution of this great and long-standing problem was at hand. The large sum needed to make the agreement effective was the gift of Mr. Edward S. Harkness of New York and that of another donor who desired to remain anonymous. So soon as this agreement had been entered in it became plain that both the College of Physicians and Surgeons and the Presbyterian Hospital must be rebuilt in juxtaposition on one and the same site; otherwise the arrangement which had been entered into must be a halting and largely ineffective one.

The ideal course would have been to bring the College of Physicians and Surgeons and the Presbyterian Hospital to Morningside Heights and to serve medical education and the medical profession by integrating them completely with the life of the University. Medical education and the medical profession suffer now, have long suffered and will apparently have to continue to suffer, from geographical and personal isolation from other forms of scientific and intellectual work and endeavor. The pathologist, the bio-chemist, the physiologist, the anatomist, should have the benefit of daily personal contact with workers in other fields. They should know and hear the physicists, the chemists, the zoologists, the historians, the economists, the students of society, and gain the stimulus and the breadth which such contacts would bring. would have his message of helpfulness for every other. Such an association and such an academic integration would revolutionize medical education and the medical profession, and revolutionize them both for the better.

Unhappily, material conditions and limitations made the achievement of this most desirable end an impossibility.

The development of Morningside Heights was of such character as to make it wholly impracticable, without a colossal expenditure and the destruction of many blocks of buildings, to put the new Medical Center there. Prolonged study was given to the vitally important problems which this whole matter raised. Finally it was possible, in the Annual Report for 1915 [pp. 24-28], to record the fact that on February I, 1915, action had been taken to purchase and develop a site on Broadway between 165th and 168th Street and to go forward with the construction thereon of new buildings for the College of Physicians and Surgeons in association with the Presbyterian Hospital, and with the boards of control of such other hospitals and institutes as might be invited to join in the undertaking. The die was now cast. Again Mr. Edward S. Harkness and Mrs. Stephen V. Harkness by princely benefactions enabled both the University and the Presbyterian Hospital to carry forward their projects of construction and to bring to realization the dream of one hundred and sixty vears.

The removal of the College of Physicians and Surgeons to the Medical Center was made during the early summer of 1928, that of the Presbyterian Hospital having taken place a few weeks earlier. The Neurological Institute was able to open its splendid building in March, 1929, the Babies' Hospital following in June, 1929. Within a few weeks the New York State Psychiatric Hospital and Clinic will be ready to receive patients. With that the present institutional program will have reached completion.

It is not possible to record the names and the services of all those who have by benefaction and by personal labor so notably served this vast undertaking. Their reward will be found in its distinction and in its usefulness and in the repute which within a few short months it has gained not only throughout this country but throughout the world. The care of the ill and suffering, the study of disease in all its forms, research, laboratory and clinical service and the fullest measure of coöperation between both individuals and institutions, are now assured in a fashion and to an extent that are hitherto

quite unprecedented. Already the pressure upon the space and the service of the Medical Center has reached the breaking-point, but fortunately provision has been made for physical extensions and additions when the funds needed to meet the cost are provided by new benefactions.

The authorized cost of the new Medical School buildings, including all fees, was \$3,559,475.00, and the actual cost, all fees included, \$3,405,414.04. The authorized cost of the new School of Dental and Oral Surgery building was \$608,119.19 and the actual cost \$552,766.66.

A striking feature of the Medical Center is the complete incorporation of the School of Dental and Oral Surgery and the intimate association of its clinical work with that of the associated hospitals. Under such conditions as these dentistry will soon cease to be looked upon as a by-product and will come to be regarded as an essential part of medicine and surgery. It will be recognized as a special field of surgical care and surgical relief, and it will no longer be dissociated either in thought or in fact with the great public and scientific service to which it really belongs.

With the removal to the Medical Center there remained one obvious need, and that is quickly to be supplied, again by the foresight and generosity of Mr. Edward S. Harkness, through his provision of the sum needed to acquire ground and to erect a building as a Residence Hall for students and unmarried junior officers at the Medical Center. The importance of this building can hardly be overestimated since from time immemorial, both in this country and abroad, the physical conditions surrounding the student of medicine have been traditionally very bad. This new building, plans for which are already well under way, will give to the student at the Medical Center comfortable, commodious and hygienic living rooms and good food in the immediate vicinity of his place of occupation. It will, moreover, quickly become the center of a society of Medical Center students which, unless all precedent fails, will have its own fortunate traditions and memories that will last through life.

From Samuel Bard who first had the vision to Edward S.

Harkness whose generosity brought its realization to pass, there has been a long series of prophets and teachers and seers who have ardently hoped for the day that has now dawned. Each and every one of these, whether he has contributed by thought, by definite plan, by scientific service, by physical labor or by benefaction, or whether he has been primarily associated with the University, with the College of Physicians and Surgeons, with the Presbyterian Hospital or with one of the other cooperating institutions, may truly say as he looks upon the Medical Center of 1929, in the stately verse of the poet Horace

Exegi monumentum aere perennius.

During the year there has come the fortieth anniversary of the granting by the Regents of the University of the State of

New York of a provisional charter to the New Beginnings of York College for the Training of Teachers. Teachers College This charter bore the date January 12, 1889.

Its preamble sets out with precision and conciseness the objects which the petitioners for the charter had in view and the policies which they proposed to follow in developing the new institution. That provisional charter and that small but earnest and well-considered beginning were the prophecy and the forerunner of the Teachers College of today.

The story of the development of the idea of Teachers College, how it originated in President Barnard's Report for 1881. how the seed then and there sown by him fell upon fertile ground, was watered and grew into a stout and beautiful tree in the educational forest, has been told in detail more than once. The question has often been asked how and why it was that the idea of Teachers College having had this origin, the institution itself came into existence as a separate corporate entity and not as a new department in the Columbia College of that day. The answer is to be found in the following report submitted to the Trustees of Columbia College on May 2, 1887, by their Committee on the Course and Statutes, which was the forerunner of the present Committee on Education. The Minutes of the Trustees for the date given contain the following record:

The Committee on the Course and Statutes presented the following Report, which was accepted and the appended resolutions were adopted.

The Committee on the Course and Statutes, having duly considered the resolutions referred to them on the 7th of February and the 4th of April last, respectfully report as follows:

The Committee have considered the communication from Mr. Nicholas Murray Butler, Assistant in Philosophy, Ethics, and Psychology, recommending a plan for the establishment of a course in Pedagogics. find that it is Mr. Butler's wish that he should be permitted to give a course of instruction in that subject in the College, that it should be offered as an elective to undergraduates in the senior year, and that the lectures should be given at the rate of two or three each week. He further proposes that the course should be open to all persons whatsoever desirous of instruction in the subject, and that they should be permitted to join the Senior Class for that particular study. Mr. Butler, on being interrogated on that point, admitted, that the number of students likely to elect that subject would be exceedingly small; that he would not consider it worth while to do the work for them only; and that his chief object would be to bring to the College a large number of persons, not otherwise connected with it, for whose benefit, in fact, the scheme has been devised. Committee are not prepared to give their assent to the proposition; it appears to them that it is open to grave objection on many grounds. The number of students in the College likely to derive benefit from it would not exceed ten or twelve. The outsiders whom the establishment of such a course would immediately attract to the College would be according to Mr. Butler's estimate, as many as 150 to 200 in number, and of these, by the same estimate nine tenths would be women, either already engaged in teaching or in training for that profession. It is obvious that the scheme would introduce entirely new elements into the work of the College, and that it could not be carried into effect without a departure from the fixed policy of the Board as to the inexpediency of admitting women to the classes in the undergraduate department. If persons from outside were to be admitted, on Mr. Butler's plan, they would be required to matriculate as other students, and the result would be to graft an outside co-educational department on the senior year. Your Committee are not able to discern any advantage likely to ensue to the College, which could be taken as an offset to the confusion which would result from the introduction of a scheme having reference to the outside public rather than to the youth under our own care; and they have therefore drafted a resolution to the effect that it is not expedient to adopt Mr. Butler's proposal.

Your Committee respectfully submit this report and propose for adoption the resolution appended to it. Dated May, 1887.

Morgan Dix Joseph W. Harper, Jr. T. W. Chambers.

Resolved, That it is not expedient to adopt the plan presented by Mr. Nicholas Murray Butler, for the establishment of a Course in Pedagogics.

This action by the Trustees closed the door to the proposed development of a department of education in Columbia College itself, and the instruction in the history, principles and practice of education, which had already been begun at No. 9 University Place, was quickly organized as a separate corporate undertaking.

On January 27, 1892, when the New York College for the Training of Teachers was well under way and was already recognized as an important and useful factor in the educational life of the nation, its Trustees formally proposed to the Trustees of Columbia College to transfer to Columbia the entire work of the New York College for the Training of Teachers from and after July 1, 1897. This proposal was referred by the Trustees to a special committee, and the opinion of the newly organized University Council was requested upon it. As a result, the University Council reported against incorporation of the New York College for the Training of Teachers in Columbia, but in favor of the most complete cooperation and a close educational alliance. The reasons for this action were powerful at the time it was taken, although they seem strangely out of date today. There were two stumbling-blocks in the way of complete incorporation of the new institution in Columbia. The first was found in the opinion, widespread among the members of the Faculty at that time, that there was no such subject as Education. and that despite President Barnard's arguments there was nothing to be studied under that head. A second and vet more powerful obstacle was found in the fact that a considerable number of students of Education, were the subject introduced, would certainly be women, and at that time the feeling against the admission of women to Columbia was very pronounced and quite impossible to remove or weaken. Once more it appears that

> There is a divinity that shapes our ends, Roughhew them how we will

and the end which President Barnard and those who followed him had in mind has been far more splendidly achieved by the course which has been pursued than they could possibly have dreamed. Teachers College is and long has been as integral a part of the educational system of Columbia University as any department of learning maintained by the Trustees themselves, while it has continued to preserve its corporate separateness. This has been the means of attracting to its enthusiastic and generous support a large company of men and women whose personal labors and whose benefactions have been essential to its growth and prosperity.

It is sometimes said that the physical juxtaposition of Columbia University and Teachers College on Morningside Heights was the result of accident. Quite the contrary is the case. When it became necessary, as it quickly did, to consider moving the New York College for the Training of Teachers from the old building of the Union Theological Seminary at No. 9 University Place, various sites were inspected on the west side of Central Park. The one which was preferred, and indeed tentatively decided upon, was the block now occupied by the Century Theatre at Central Park West, Broadway, 62d and 63d Streets. Some of the same persons who were searching for a suitable site for what is now Teachers College were also searching for a suitable site to serve as a permanent home for Columbia University. So it happened, naturally and quickly, that when the site on Morningside Heights was chosen for Columbia, the property immediately adjoining on the north was chosen for Teachers College. The juxtaposition, therefore, of the two institutions so far from being the result of accident is the result of very carefully planned design.

In forty short years Teachers College has become the outstanding center of enlightenment, research and influence, national and international, in the whole field of educational endeavor. Its graduates are to be found on every continent and in every type of school, college or university. Its teaching scholars and organizers of research are as well known in Asia and in South America as they are in Europe and in every part of the United States. If ever a dream came true with amazing completeness, it was the dream which was in the mind of President Barnard when he wrote his now famous Report of 1881.

BIBLIOGRAPHY

Barnard, President—Annual Report of the President of Columbia College, June 6, 1881—
Education as a Science—pp. 38-68.

Annual Report of the President of Columbia College, May 1, 1882—

Education as a Science—pp. 51-65.

Annual Report of the President of Columbia College, May 3, 1886—

Lectures on the Science of Education—pp. 56–58.

Butler, Nicholas Murray—The Beginnings of Teachers College, in Columbia University Quarterly, September, 1899, pp. 342-46.

Letter to Dr. Rollins, President of the Teachers College Alumni, February 17, 1914, in Columbia University and Teachers College, Documents and Correspondence, printed for the Trustees, June 30, 1915, pp. 204-06. Address at the Dedication of the

Address at the Dedication of the Horace Mann School for Boys.

(Teachers College Record, January, 1915, pp. 6-10.)

The Origins of Teachers College and the Horace Mann School— Address at the Fortieth Anniversary Luncheon of the Horace Mann School, January 22, 1927—

(Teachers College: Bureau of Publications, 1927.)

Fackenthal, Frank D.—Columbia University and Teachers College, Documents and Correspondence—Revised edition printed for the Trustees, June 30, 1915.

Luckey, G. W. A.—The Professional Training of Secondary Teachers in the United States: a dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Columbia University. (New York: 1903, pp. 132-39.)

Teachers College—Official Documents, 1907—Printed for the College.

The acceptance and approval by the Trustees of the recommendation from the Faculty of Applied Science and from alumni that the name of the Faculty should be changed to that of Faculty of Engineering, completes the reorganization of what was once the old School of Mines, which was begun in 1912, also on the recommendation of Faculty and alumni alike. The way is now open to go forward with those progressive policies which the University has had in mind ever since the first plan for the School of Mines was presented to the Trustees some sixty-five years ago. It was always the intention that the

School of Mines should offer an advanced course and that it should lay emphasis upon the training of leaders in the engineering profession and upon research. Unhappily, the project as conceived by Professor Vinton, Professor Egleston and Professor Chandler was in advance of its time. It was for this reason that more elementary instruction had to be offered, and nearly fifty years passed before return was possible to the execution of the original program. Today about half the number of students who under earlier conditions would have been registered in the School of Engineering appear as pre-engineering students in Columbia College. Only those students are now classed as engineering students who have fully complied with the new and higher requirements for entrance upon a strictly professional course of study. Meanwhile other schools of engineering, many of them excellent and well equipped, have sprung up in all parts of the country, and the necessity which once existed of coming to the School of Mines for the best possible training in mining and metallurgy no longer exists. Most admirable training in those subjects is offered at a dozen or more institutions scattered throughout the land. The future usefulness of the School of Engineering and its influence will depend upon its attracting the best type of man who has chosen engineering as his field of life-work, offering him the best possible training while at the University and surrounding him with every apparatus for instruction and research that can aid in informing and in stimulating his professional capacity and zeal. The Report of the Dean of the Faculty of Engineering gives in concise form a statement not only of the operations of the year, but of present conditions and future plans.

What the School of Engineering most needs is large and extensive additions to its equipment. In this respect funds have not been available to enable the Trustees to keep pace with the opportunities that lie open. Since the provision of the Chandler Laboratories, the Departments of Chemistry and Chemical Engineering have found themselves in an excellent situation. With proper and thoroughly modern equipment the Departments of Mining and Metallurgy would

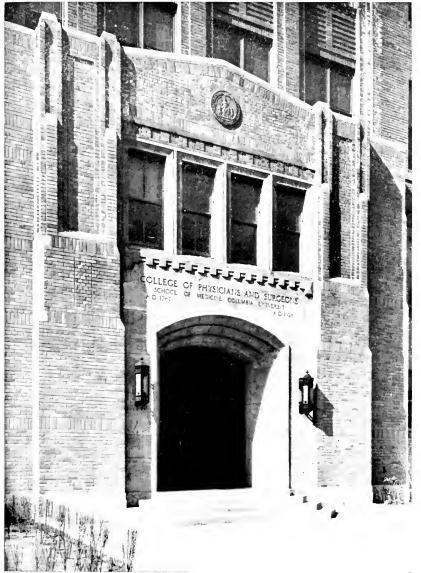
quickly be in like condition. It is particularly the Departments of Civil Engineering, of Electrical Engineering and of Mechanical Engineering which require very large additions to their physical resources and to their equipment for experiment, instruction and research. Indeed, this is one of the most pressing needs of the University at the present moment. The Dean and Faculty have done and are doing everything that lies in their power with the resources which they are able to command.

The enrollment in Barnard College remains substantially uniform because it has reached the saturation point. The

Barnard College is, therefore, able to select with some care from the large number who make application for admission each year those who are thought to be best fitted to profit by the college course. The geographical distribution of these students is most interesting and reflects the reputation of the College throughout the United States.

More and more the educational value of life in a great metropolitan city during the years of college residence is impressing itself upon those whose homes are in smaller cities and towns. It is not only the admirable instruction which Barnard College has to offer which attracts so many young women from a distance, particularly from the southern states, but it is the fact that during three or four years of residence in New York they may hear and see men and things which are themselves important factors in a liberal education. The very large amount of music of the highest class which may be heard in New York, the improved standards of the best theaters, the important and distinguished preachers, orators, lecturers and other personalities are all eagerly sought by those who are not themselves city dwellers, and there is abundant testimony to the admirable effect of it all.

While Barnard College is distinctly and distinctively a college for women, it has characteristics of its own which mark it off sharply from those colleges for women which are separate and apart from university relationship, whether geographically or in fact. Barnard College is interwoven in its every feature with the life of the University, of which it is an integral



Richard Southold Grant, Photo

MEDICAL CENTER
THE ENTRANCE TO THE MEDICAL SCHOOL



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MEDICAL CENTER
THE NEW YORK STATE PSYCHIATRIC HOSPITAL COMPLETED IN 1939

part. The contacts, the associations, the opportunities, the stimulus which this University membership offers to students of Barnard College are of incalculable value. While yet undergraduates these young women see and come to know what university life, university methods and university spirit are, both in themselves and as distinguished from college life, college methods and college spirit. Students of Barnard College receive what may be described as coeducation, but without co-instruction save in those few courses toward the end of their program of undergraduate study which are, for one reason or another, offered to qualified men and to qualified women without difference or repetition. The coeducation rests upon the identity of opportunity and upon being made subject to identical influences and identical ideals.

In connection with the Commencement of 1929 the College of Pharmacy of the City of New York, incorporated in the educational system of Columbia University in 1904, celebrated the one hundredth anniversary of its first organization and establishment. The celebration was accompanied by the publication of a most admirable historical volume from the pen of Professor Curt P. Wimmer, Professor of Pharmacy, describing the foundation and development of the College. In this volume the history of the College is set out with accuracy and fidelity and a record is made of exceptional significance.

The College of Pharmacy is peculiarly the creation of the pharmacists of New York. It was the wholesale and retail dealers in drugs who first saw and felt the need for trained pharmacists and who associated themselves together to supply that need. How well they succeeded the history and record of the College of Pharmacy itself amply illustrates and testifies.

One of the outstanding events of the centennial celebration was the presentation of a portrait of Dean Rusby made as a gift to the College by the student body of today. At the same time a substantial sum of \$1500 was presented by the Alumni Association of the College to serve as the beginning of a fund for the endowment of the medals and other prizes now awarded each year by that Association for excellence in

pharmaceutical study. Historical exhibits were prepared showing the evolution of the practice of pharmacy from the conditions of a century ago to those of today. On Commencement Day the University awarded the degree of Doctor of Science in Pharmacy to six outstanding representatives of pharmaceutical science, chosen and nominated by the College of Pharmacy itself.

The position of the College of Pharmacy, both in the University system and in relation to the profession which it serves, is now happily secure. Each year its foundations are strengthened, its work broadened and deepened and its influence throughout the country increased.

The spirit of inquiry which is the distinguishing mark of the true university dominates Columbia in its every part.

Organization of Research The constant search for new truth, for deeper and surer interpretation of facts and phenomena already known, and the open-minded weighing

of new ideas go forward steadily in every department of knowledge and furnish the most stimulating of environments for serious-minded youth. The world, and particularly the American world, is filled with those who are not willing to permit discussion of that which is unfamiliar or odd, or which conflicts with established and cherished beliefs and practices. It has become customary to describe this frame of mind and this point of view as Fundamentalism, but as a matter of fact that is precisely what it is not. Fundamentals are those secure and underlying principles and those lofty and dominating ideals which furnish liberty both with its basis and its goal. No one who is firmly grounded in fundamentals can possibly have the closed and intolerant mind of him whom it is now customary to describe as a Fundamentalist.

Intolerance quickly expresses itself in persecution, and persecution begets fanaticism of the most dangerous type. He who cannot hear his beliefs and convictions assailed has not come under the influence of the university spirit and is in no sense a truly educated man. Liberty of necessity involves tolerance and should beget it.

During recent years it has been possible to organize groups of research workers, and through benefactions to provide

them both with the material and the opportunity with which to plan and to carry on systematic investigations in a variety The Council for Research in the Social Sciences and the Council for Research in the Humanities, both working under the general jurisdiction of the University Council, have received financial support that is most gratifying. have responded with programs and with performance which amply justify the benefactions that have been received. The Faculty of Law is, in effect, a council of research in that field. The plans of this Faculty have been carefully matured and are now being executed as rapidly as their importance will permit. The Faculty of Medicine is likewise, to all intents and purposes, a group of research workers. The results of medical research, however, are in accordance with professional custom, scattered through so many varied journals, proceedings and fugitive publications that it is not easy to mass them together as evidence of the scientific activity of the group which is responsible for their production.

From the point of view of the University student the important thing is not the magnitude or the weight of the task upon which he is engaged, but the fact that engagement upon it keeps him looking constantly out toward the horizon of knowledge. Much that is petty, much that is insignificant, not a little that is misleading will often result from these inquiries. But, on the other hand, the spirit of inquiry itself will keep alive and awake all those whom it animates, and will from time to time result in very considerable additions to man's knowledge of himself and of the world in which he lives.

Public recognition of merit and distinction may come in a variety of ways. Certainly one of the most desirable and most significant ways is through the act of an ancient and well established university in conferring honorary membership in its society. Particularly in democratic states such as Great Britain, France, and the United States, has this honor come to be greatly prized. It is not possible, therefore, for a university to be too careful in the award of these honors, so high is the consideration in which they are held.

The by-laws of the Trustees make it quite impossible for an honorary degree to be awarded by Columbia University save after careful consideration and full opportunity for discussion of the merits of any particular case. The list of those whom Columbia University has delighted to honor is one of the glories of the University, and that list, of itself, admirably reflects the University's catholic spirit, world-wide field of interest, and loftiness of standard.

It is undesirable that any degree should be conferred as an honor which may be obtained statedly in course. It was for this reason that the degree of Doctor of Philosophy, once freely conferred in the United States as an honorary degree, is no longer so conferred by institutions of the first rank. The degree of Master of Arts, which has long been awarded in course, still persists as an honorary degree, in accordance with ancient usage. The Trustees of Columbia University, however, have preferred to discontinue the award of that degree as an honor, for the simple reason that it is, and long has been, regularly conferred in course. As a substitute there has been authorized the Columbia University Medal, to be awarded for distinction in cases where the degree of Master might have been awarded in earlier years. The award of the University Medal will be subject to the same careful and searching regulations as prevail in the case of honorary degrees. Because of this fact, it should be and certainly will be held in high regard and looked upon as a distinction greatly to be valued.

It is not difficult to honor men after they are dead, but surely it is more becoming and much more satisfying to pay justly earned tribute to them while they are able to appreciate and to enjoy the acclaim of those whose praise they are proud to win.

Examination of the Treasurer's Report shows that for the year ending June 30, 1929, the income of the University corporation was \$9,932,007.26, of which amount \$5,015,416.87, or more than one-half, was received from fees of students for tuition or residence. The total expenditures for the year, including interest on the corporate debt, amounted to \$10,204,785.24.

To this, however, must be added \$100,000 paid into the Redemption Fund on account of the loan of 1909 and \$95,000 set aside for the amortization of the loan of 1925. The net result of the year, after providing for the debt service, was a deficit of \$467,777.98. It is appropriate, therefore, to repeat the statement made in the last Annual Report, that if the University were relieved, by new gifts and benefactions, of the bonded indebtedness incurred in connection with the purchase and development of the site on Morningside Heights and with the development of the building program of 1925 which was made absolutely necessary in order to provide for the University's current work, there would be a reasonable amount of income available for strengthening and developing the educational work now in progress.

The appropriations as contained in the budget adopted by the Trustees on April 8, 1929, for the work of this corporation alone during the year now in progress, together with such amendments as were made previous to June 30 last, are as follows:

For educational administration and instruction \$9,037,730.56					
For care of buildings and grounds 1,009,061.82					
For the Library					
For business administration					
For annuities					
For taxes and other charges upon the Loubat property . 59,215.00					
For interest on the corporate debt					
For Schedule J (see below)					
For payment on account of Redemption Fund, due June 30,					
1930					
For amortization of the loan of 1925					
7.0					
Making in all the sum of					
Making in all the sum of					
Making in all the sum of					
Making in all the sum of					
Making in all the sum of					
Making in all the sum of \$11,631,031.84 which sum is made chargeable as follows: To the income of the corporation \$8,678,377.32 To the income from special endowments 1,127,453.64 To gifts 260,302.58 To moneys to be paid by the Carnegie Foundation 105,298.30					
Making in all the sum of					
Making in all the sum of \$11,631,031.84 which sum is made chargeable as follows: To the income of the corporation \$8,678,377.32 To the income from special endowments 1,127,453.64 To gifts 260,302.58 To moneys to be paid by the Carnegie Foundation 105,298.30					

To moneys to be paid by St. Stephen's College .			66,350.00
To special real estate account—Loubat property			59,215.00

\$11,631,031.84

By reference to the charges against the general income of the corporation it will be seen that these amount to \$1,255,-160.30 more than the same item in the budget for the year preceding, as shown in the Annual Report for 1928 (p. 45). Since the amount of estimated general income with which to meet these charges is \$8,057,271.79, there is a present estimated deficit in the cost of the work of the year ending June 30, 1930, of \$621,105.53.

The budget for 1929–30 contains a new Schedule J, which is based upon and is the outgrowth of the report of the Special Committee on the Allocation of Income from the Upper Estate submitted to the Trustees and approved by them on March 4, 1929. The purpose of the action then recommended and adopted is to make sure that the outstanding obligations of the University, whatever their character, be fully met before any extensive increases are authorized in appropriations for current purposes.

It has been the custom to record in each Annual Report a summary of the financial operations of each year since the corporate debt of \$3,000,000 incurred in the purchase and development of the site on Morningside Heights was refunded in the loan of 1909. That date marked the end of an earlier period of corporate financing and the beginning of a new. The record is shown in the accompanying table:

The sharp change from surplus to deficit shown in 1917–18 was due, of course, to war conditions. The deficit for that year was greatly reduced, however, by the work of the Alumni Fund Committee in raising nearly \$200,000—to be exact, \$199,218.36—to be applied toward meeting it. After making allowance for this gift, it appears that for the last twenty-two years the operations of the University have been carried on at a net deficiency in income and expense account for the entire period of only \$194,756.55. Meanwhile, as shown in the annual reports of the Treasurer, the income of the University of the University have been carried on the annual reports of the Treasurer, the income of the University have

	Year	Surplus	Deficit
1907-1908		\$ 52,885.18	
1908-1909		59,540.58	
1909-1910		52,528.46	
1910–1911			\$ 3,093.11
1911–1912			19,711.20
1912-1913			67,769.12
1913-1914			42,952.64
1914-1915			13,592.55
1915-1916			40,855.14
1916-1917		30,547.37	
1917–1918			211,106.17
1918–1919		82,214.74	
1919-1920		71,590.93	
1920-1921		89,571.82	
1921-1922		156,630.54	
1922-1923		98,786.81	
1923-1924		54,982.74	
1924-1925			122,909.21
1925–1926		157,205.79	
1926–1927			142,229.76
1927-1928			168,462.99
1928-1929			467,777.98
		\$906,484.96	\$1,300,459.87

versity has advanced from \$2,297,949.46 to \$9,932,007.26, and its expenditures from \$1,933,426.80 to \$10,399,785.24.

With the re-leasing of the Upper Estate to Mr. Rockefeller, as described earlier in this Report, a new period of corporate financing begins. It will not be necessary, therefore, to repeat in future Reports, as has been done for each year of the period just closed, the foregoing summary of the result of each year's financial operations. The record above given will stand for the information it contains and for its historic interest.

One of the most significant facts in connection with the gifts made to Columbia University is that by far the larger number of them are unsolicited. They come steadily and helpfully because of the faith of hundreds of men and women in the University's work and their desire to assist it and to be associated with it.

The gifts and bequests received during the year are set out in detail in the Treasurer's Report (pp. 146-68). They amount to the very considerable sum of \$2,370,677.24, divided as follows:

A. Gifts to Capital:						
 General endowment 						
2. Special endowments					515,549.11	
Buildings and grounds	S				786,250.00	\$1,339,572.70
B. Gifts to Income:						
1. For general purposes					\$542,795.56	
2. For specific purposes					488,308.98	1,031,104.54
						\$2,370,677.24

The principal additions to general endowment were payments made on account of estates still in course of administration.

The chief additions to special endowments were the gift by Mrs. Nathan J. Miller of \$250,000 to establish the Miller Endowment Fund to maintain a Chair of Jewish History, Literature and Institutions, and the various other considerable gifts to the endowment fund of the School of Dental and Oral Surgery, including that of Dr. Henry W. Gillett of \$30,000.

For buildings and grounds the largest gift is that of Mr. Edward S. Harkness of \$525,000 for the purchase of a site for a Residence Hall for the Medical School, and an anonymous gift of \$175,000 toward the cost of erecting a Residence Hall for medical students.

The total gifts in money received during the year by the five corporations included in the educational system of the University are classified as follows:

Purpose	Columbia University	Barnard College	Teachers College	College of Pharmacy	St. Stephen's College	Total
A. Gifts to Capi-						
i. General en- dowment	\$37,773.59	\$444,099.12	\$1,000.00		\$2,500.00	\$485,372.71
2. Special en-	515,549.11	16,175.00	3,500.00	\$1,500.00	150,250.00	686,974.11
3. Buildings and grounds .	786,250.00		9,290.00		10,000.00	805,540.00
B. Gifts to Income: 1. General pur-						
poses	542,795.56	50.00			52,842.22	595,687.78
poses	488,308.98	18,288.30	520,257.04		17,500.00	1,044,354.32
	\$2,370,677.24	\$478,612.42	\$534,047.04	\$1,500.00	\$233,092.22	\$3,617,928.92

The following statement, which is presented annually, records the gifts in money alone made since 1890 to the several corporations included in the University:

1890-1901 .								\$5,459,902.82
1901-1902 .							\$1,082,581.02	
1902-1903 .							1,721,895.06	
1903-1904 .							1,783,138.18	
1904-1905 .							1,960,247.87	
1905-1906 .							1,299,909.78	
1906-1907 .							1,360,590.80	
1907-1908 .							1,077,933.87	
1908-1909 .							974,637.07	
1909-1910 .							2,357,979.30	
1910-1911 .							2,932,655.79	16,551,568.74
1911-1912 .							\$2,242,417.58	
1912-1913 .							1,605,935.33	
1913-1914 .							1,494,648.61	
1914-1915 .							814,111.69	
1915-1916 .							2,287,144.91	
1916-1917 .							1,634,578.78	
1917-1918 .							882,267.76	
1918-1919 .							3,455,356.60	
1919-1920 .							3,724,181.14	
1920-1921 .							2,190,289.85	20,330,932.25
1921-1922 .							\$3,270,380.76	
1922-1923 .							12,728,021.59	
1923-1924 .							2,375,691.92	
1924-1925 .							2,097,108.25	
1925-1926 .							5,276,777.11	
1926-1927 .							3,498,380.20	
1927-1928 .							5,546,667.61	
1928-1929 .						•	3,617,928.92	\$38,410,956.36
Total								\$80,753,360.17

This impressive total speaks for itself and testifies not only to the University's hold upon the public but to its vast and multiplying needs. In the following summary financial statement given each year, the land, buildings and equipment used for educational Property and Endowment Estates at their assessed valuations, and all other property at book values.

	Resources June 30, 1929	Budget Appropriations 1928–1929	Income and Expense Account 1928–1929
Columbia University Barnard College Teachers College College of Pharmacy St. Stephen's College	\$104,609,234.64 8,623,968.87 15,363,081.04 868,446.95 1,624,120.19 \$131,088,851.69	441,618.48 ¹ 3,143,268.88 ² 200,022.50 191,708.75 ³	+ 183,065.39 + 50,087.11

The following officers of the University have died since the publication of the last Annual Report:

On December 6, 1928, Bashford Dean, Ph.D., Honorary Professor of Vertebrate Zoölogy, in the sixty-second year of his age.

On December 20, 1928, Newbold Morris, LL.B.,
Deaths of a Trustee of the University since 1923, in the
University Officers sixty-first year of his age.

On January 21, 1929, Cornelius Rybner, Mus. Doc., Professor of Music retired, in the seventy-sixth year of his age. On February 9, 1929, Robert J. Leonard, Ph.D., Director of the School of Education of Teachers College and Professor of Education, in the forty-fifth year of his age.

On February 15, 1929, Melville E. Stone, A.M., LL.D., a member of the Advisory Board of the School of Journalism since its establishment in 1912, in the eighty-first year of his age.

On March 31, 1929, Brander Matthews, LL.D., Litt.D., D.C.L., Professor Emeritus of Dramatic Literature, in the seventy-eighth year of his age.

On June 7, 1929, Russell Gordon Smith, Ph.D., Instructor in Sociology, in the thirty-seventh year of his age.

¹ In addition to \$445,885 included in the Columbia University Budget.

² In addition to \$853,150 included in the Columbia University Budget.

³ In addition to \$66,350 included in the Columbia University Budget.

On August 19, 1929, Robert Hall Bowen, Ph.D., Professor of Zoölogy, in the thirty-eighth year of his age.

On September 21, 1929, Grace A. Hubbard, A.M., Associate Professor

of English retired, in the sixty-first year of her age.

On November 12, 1929, Mrs. Joseph H. Choate, a Charter Member, since 1889, of the Board of Trustees of Barnard College, in the ninety-third year of her age.

During the year there died also Mrs. Seth Low, widow of the eleventh President, whose gracious personality and keen interest in the life and work of Columbia were well known and well remembered by the older members of the staff.

The date of the submission of this Report coincides with the final ceremonies of the formal celebration by the University

of the 175th anniversary of its corporate existence. That celebration, carefully and wisely planned, has been carried forward with marked distinction and becoming

One Hundred and Seventy-Five Years

Both the mind and the heart of the University dignity. alike have been turned backward and upward to contemplate and to honor the founders, the builders, the benefactors and that long procession of scholars and men of science who have, each one in his turn and in his own way, labored to bring to pass the Columbia University of today. The tasks of tomorrow will seem less severe because of our satisfaction with the achievements of the days that are gone. Hard and difficult problems have been faced and met by generation after generation of high-minded men in finest spirit of understanding and devotion. Today, at the end of a century and three-quarters of honorable and honored life, Columbia University stands in the heart of the greatest community of the western world. serving the city, the state, the nation and within the limits of its possibilities, all mankind, with ardent, generous and high-minded service.

NICHOLAS MURRAY BUTLER,

President

TABULAR STATEMENTS

TEACHING STAFF

			T	College		To	als2
Teaching Staff	Columbia University	Barnard College	Teachers College ¹	of Pharmacy	St. Stephen's College	1927-	1928-
Professors (including Clinical Professors) Associate Professors (including Associ-	319	15	58	4	8	293	319
ate Clinical Pro- fessors)	123	12	22	7	4	116	123
fessors)	220	16	31	5	3	203	220
Associates	97	3	16			121	113
Instructors (including Clinical Instruc-		V					V
tors)	383	32	84	22	3	420	489
Lecturers	73	19	50	3		118	126
Curators	3		I			3	4
Assistants	207	14	65		I	238	272
Total	1,425	III	327	41	19	1,512	1,666
University Extension not included above Summer Session not included above	503 516					368 520	503 516
						[1928]	[1929]
Total	2,444	III	327	41	19	2,400	2,685
Administrative Officers not enumerated							
above as teachers . Emeritus and Retired	50	8	16	3	I	63	63
Officers	37	I	8	2		34	37
Total	2,531	120	351	46	20	2,497	2,785
Employees	1,240	182	691	26	31		2,170

¹ Excluding the Horace Mann, Speyer, Lincoln, Quaker Grove and Wilton schools.

² Excluding duplicates.

STUDENT ENROLLMENT

		Totals	Gain	Loss
RESIDENT STUDENTS				
A. WINTER AND SPRING SESSIONS				
Undergraduate Students:			1	
Columbia College	1,942			82
Barnard College	1,144		7.5	0.2
University Undergraduates .	136		46	
Saint Stephen's College	123		'	
Seth Low Junior College	385			
Com 2011 James Comege 1 1				
Total Undergraduates		3,730	547	
Graduate and Professional	1			
Students:				
Political Science, Philosophy	!		1	
and Pure Science	2,973		41	
Architecture	104		3	
Business	444		62	
Dental and Oral Surgery				
Dentistry	184		26	
Oral Hygiene	71		13	
Engineering	221		23	
Journalism	160		10	,
Law	648			160
Library Service	220		1.4	
Medicine	425			3
Optometry	45			19
Pharmacy	743			126
Teachers College:	_			
Education	3,985		70	
Practical Arts	1,948		162	
Unclassified University			2.7	
Students	222		35	
Total Graduate and Pro-				
fessional Students		12,393	151	
B. SUMMER SESSION (1928) includ-		,533	-5-	
ing undergraduate, graduate,			i l	
professional, and unclassified	1			
students		14,007	150	
C. University Extension				
Regular courses (Net)		9,718		967
Gross Total Resident Students		39,848		119
Less double registration		3,261		119
Less double registration		3,201		
Net Total Resident Students		36,587		IOI
II. NON-RESIDENT STUDENTS				
University Extension				
Extramural courses		2,189		147
Special courses		664		187
III. HOME STUDY STUDENTS				
University Extension				
Home Study courses		9,282	1,763	

DEGREES CONFERRED

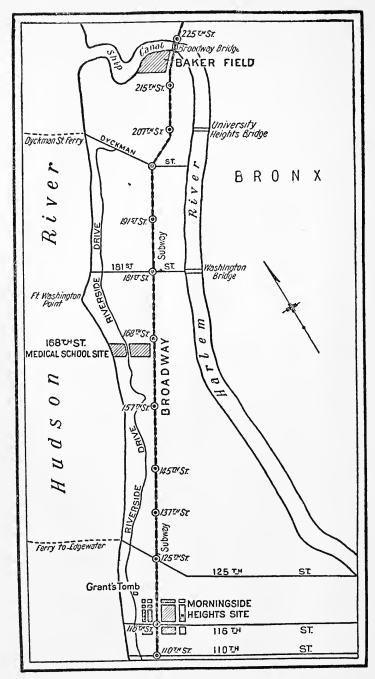
During the academic year 1928–1929, 4,647 degrees and 884 certificates and diplomas were conferred, as follows:

•	
COLUMBIA COLLEGE: Bachelor of Arts 389	Doctor of Dental Surgery . 25 Certificate in Oral Hygiene 67
389	120
Barnard College:	University Council:
Bachelor of Arts 255	Bachelor of Science 28
	28
255	= -
FACULTY OF LAW:	University Extension:
Bachelor of Laws 163	Certificate in Secretarial
Master of Laws I	Studies 25
	Studies 25 Certificate in Library Ser-
164	
FACULTY OF MEDICINE:	
Doctor of Medicine 107	Preliminary Certificate in
107	Accounting 1
	Certificate in Fire Insur-
FACULTY OF ENGINEERING:	ance 10
Bachelor of Science 41	Preliminary Certificate in
Engineer of Mines 4	Designate in
Metallurgical Engineer 2	Business I
Electrical Engineer 9	38
	College of Pharmacy:
Mechanical Engineer 4	Pharmaceutical Chemist . 111
Civil Engineer 9	
Chemical Engineer 7	Bachelor of Science 8
Master of Science 39	119
	FACULTIES OF POLITICAL
115	Science, Philosophy,
School of Architecture:	AND PURE SCIENCE:
Bachelor of Architecture . 14	AND FURE SCIENCE:
Master of Science I	Master of Arts 623
15	Doctor of Philosophy 190
	813
School of Journalism:	FACULTIES OF TEACHERS COLLEGE:
Bachelor of Literature 48	
Master of Science in Jour-	Master of Arts 1,699
nalism	Bachelor of Science 510
nalism	Master of Science 29
Certificate of Frontiericy	Bachelor's Diploma 158
in Journalism <u>3</u>	Master's Diploma 574
62	
	2,970
School of Business:	SAINT STEPHEN'S COLLEGE:
Bachelor of Science 62	Bachelor of Arts 19
Master of Science 41	
Certificate in Secretarial	
Studies 4	Union Theological Seminary:
	Master of Arts <u>3</u>
107	3
School of Library Service:	SETH LOW JUNIOR COLLEGE:
Bachelor of Science 149	Certificate 4
Master of Science 12	certificate4
	4
161	Total Degrees, Certificates
OPTOMETRY:	and Diblomas granted 5.531
Bachelor of Science 6	Number of individuals re-
Certificate in Optometry . 36	coining them 1820
	ceiving them $\dots \dots 4,839$
42	No graduates in Pharmacy this
SCHOOL OF DENTAL AND ORAL	year by reason of change of
Surgery:	course from 2 to 3 years
Bachelor of Science 28	Honorary Degrees 11

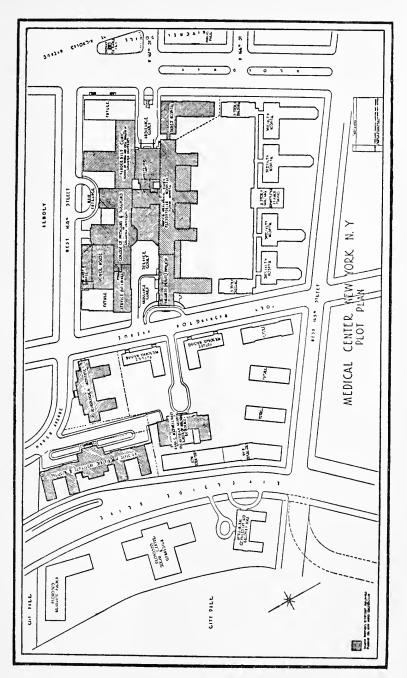
THE SITE

	Square Feet	Acres
A. 1. At Morningside Heights		
Green and Quadrangle	734,183	16.85
South Field	359,341	8.25
East Field	90,825	2.08
Columbia House	3,618	.082
Deutsches Haus	1,809	.041
Maison Française	1,809	.041
Residence of the Dean of the	2,009	
College	1,809	.041
Residence of the Chaplain	1,809	.041
Claremont Avenue Property	29,000	.679
Casa Italiana	4,036	.092
	1,228,239	28.197
2. New Medical Center		
[Broadway and 168th Street]		
Total site, 891,185 sq. ft.		
20.458 acres		
Under ownership of Columbia	_	
University	471,158	10.816
3. At Baker Field	1,221,385	28.039
[Broadway and 218th Street]		
	2,920,782	67.052
B. Barnard College	177,466	4.07
C. Teachers College	177,400	4.07
I. At 120th Street	156,420	3.591
2. At 500 West 121st Street	17,035	.391
3. At 512, 514 West 122d Street	17,033	.391
and vacant lots	16,535	.380
4. Lincoln School	47,500	1.090
5. At 106 Morningside Drive	17,668	.406
6. At Van Cortlandt Park	619,600	14.224
7. At Speyer School	4,917	.113
[514 West 126th Street]		
Total for Teachers College .	879,675	20.195
i i i i i i i i i i i i i i i i i i i	-13,-13	
O. College of Pharmacy	7,516	.172
[115 West 68th Street]		
E. Camp Columbia, Morris, Conn	25,495,668	585.3
5. St. Stephen's College	1,481,040	34.
Total	30,910,989	700.789

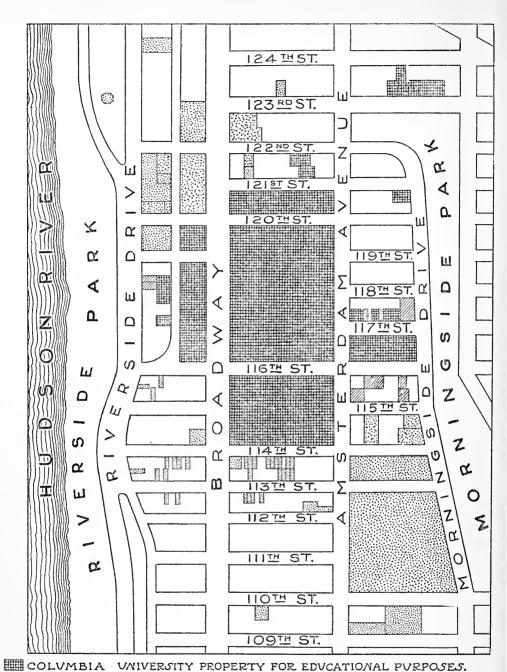
ILLUSTRATIONS



RELATION OF NEW MEDICAL CENTER
AND BAKER FIELD TO MORNINGSIDE HEIGHTS

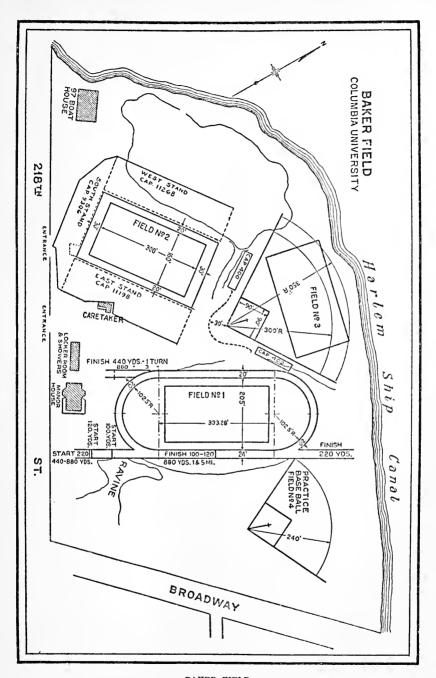


MEDICAL CENTER



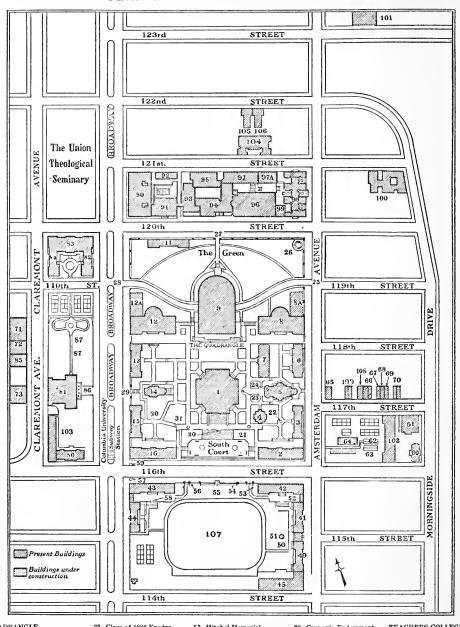
OTHER COLUMBIA UNIVERSITY PROPERTY
OTHER PUBLIC INSTITUTIONS INCLUDING FRATERNITY HOUSES

0 200 400 600 800 1000 SCALE IN FEET



BAKER FIELD

PLAN OF BUILDINGS AND GROUNDS



- QUADRANGLE

 1. Library
 2. Kent
 3. Philosophy
 4. East Paul's Chapel
 5. Status
 6. Status
 6. Status
 7. Avery
 8. Schermerhorn Extension
 9. University
 112. Havemeyer
 12a Chandler Laboratories
 13. Engineering
 14. Engineering
 15. School of Business
 20. Status of Alma Mater
 21. Class of 1881 Fus Staff
 22. Class of 1887 Well Head

- 23. Class of 1886 Exedra 24. Class of 1893 Chapel Bell 25. Class of 1893 Ghe 26. Statue of Great God Pan 27. Class of 1882 Gates 28. Mapes Gates 29. Class of 1891 Gate 30. Meunier's Hammerman 1889 Mines Class Git 31. Lafayetta Post Flag Pole

- SOUTH FIELD

 40. Livingston

 41. Hartley

 42. Hartley

 43. Journalism

 44. Furnald

 45. John Jay

 50. 1906 Clock

 51. VanAmringe Memorial

 52. Hamilton Statue

- 53. Mitchel Memorial Steps 55. Class of 1885 Sun Dial 55. Classes of 1885 Sun Dial 56. Classes of 1884 and 57. Class of 1890 Pylon 58. Jefferson State 59. Class of 1900 Pylon 107. South Field

- FAST FIFELD
 60. President's House
 51. Faculty Honse
 52. Botany Greenhouse
 63. Agricultural Greenhouse
 66. Crocker Institute
 66. Greenhouse
 67. Dean Hawkes
 68. Chaplain Knox
 59. Maison Française
- 70. Carnegie Endowment 102. Johnson Hall 108. Deutsches Hans 109. College Entrance Exam-ination Board

CLAREMONT AVENUE 71. DeWitt Clinton 72. Morris 73. Tompkina 85. Charles King

- 80. Charles King
 BARNARD COLLEGE
 80. Brooks
 81. Barnard
 82. Brinckerhoff
 83. Milhaok
 84. Fiske
 66. Helen Hartley Jenkins
 Geer Memorial Gata
 87. Milbank Quadrangle
 103. Hewitt

- TEACHERS COLLEGE
 99. Horace Mann School
 91. Thompson Hail
 92. Annex
 35. Milbank Chapel
 94. Main Teachers Collega
 95. Main Teachers Collega
 96. Rossell Hail
 97. Grace Dodge Hail
 98. Whittier
 99. Lowell Annex
 100. Seth Low
 101. Lincoln Schilding
 104. Bancroft
 106. Grant
 106. Saresota

COLUMBIA COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As Dean of Columbia College I have the honor to present the following report for the year 1928–1929.

The reorganization of the curriculum of the College which was authorized by the Faculty in April, 1927, and which was described in outline in my report for the year 1927–1928, has been followed by a year of careful and detailed work in each of the departments of study. It was obviously impossible to realize all the complications of the new plan at the time it was passed. Certain improvements in our procedure seemed assured, but no one could be expected to foresee every possible weakness or strength of a project so complex and farreaching as the one adopted.

Although the new curriculum has been in actual operation for only one year and that only for the freshman class, it is now possible to see with considerable clearness the direction in which the work of the College may be guided under its provisions. It goes without saying that not until the work for all four classes has been organized and actually tried out will all of the implications of the new plan be brought to light. Some of these unexpected implications will be desirable and must be fostered, while others will run counter to the general spirit of the plan and must be avoided. In any case, during the next year or two it is exceedingly important to maintain an attitude of constructive criticism and sensitiveness to the tendencies both good and bad.

So far as the freshman year is concerned the foundations on which the succeeding years must rest have already been laid. In the Department of English the work in composition has been separated from that in literature so far as to recognize competency or the lack of it in either field without reference to the other. The revision of the course in contemporary civilization has been carried to completion and instruction in the revised first year's work already given. The emphasis during this first year is upon the nature of man as a psychological entity and as a social unit, followed by a survey of the features of the civilization developed in Europe and America most significant for an understanding of the social order of the present day. The syllabus for the second year of this course with the preparation of the necessary textbook is ready for use in September, 1929. In this section of the course, economic and governmental questions are considered, in order that the student may be brought to a knowledge of the kind of world he lives in, an understanding of the major problems of our modern civilization, and an appreciation of the various ways in which men have attempted and are attempting to meet Each of the natural and physical sciences has organized an elementary course meeting three times a week, with a minimum of laboratory work, intended for students whose major interest may lie in other fields but who wish to gain an introduction to the science in question. In the Departments of Botany and Geology this course not only serves as a survey of the subject for the person who does not plan to pursue further studies in that field, but as an introduction to more advanced work in the Department as well. In Physics the first half of the survey course prepares the student for further departmental work, while in Chemistry and in Zoölogy the survey course does not automatically prepare the student to enter more advanced courses. It will be interesting to observe the development from these beginnings. Whether two or more departments, as Physics and Astronomy, Zoölogy and Botany or Geology will finally pool their interests in offering a course that is more broadly survey in character, as is already done successfully in a number of colleges, or whether courses in each department will be organized which serve the double purpose of survey and introduction, is an open question. It may be that departmental opinion or the nature of the subject matter may make one plan or the other

more promising in each of the various fields. The exact method of gaining the result is less important, however, than the recognition by the departments that they have a responsibility to that part of the student body that will never go very far in their subject, but as intelligent persons desire to get at least a glimmering as to what the subject stands for in the intellectual world of today.

If the new curriculum is to be successful in the largest sense it must make a definite contribution to the solution of some of the difficult problems which the American college is facing. In attempting to state these problems one may start from any one of several points of departure. One approach emphasizes the responsibility of the college for affording intellectual stimulation and satisfaction to its ablest students. Much has been done in sectioning students according to their abilities; many brands of so-called honors courses have been organized; various schemes of tutorial instruction are in operation, all of which are included in an effort to take care of the student who is intellectually superior. Each of these efforts is helpful and each contributes to an understanding, if not to a solution, of the problem. It is to be expected that many devices will be tried out in different colleges, depending for their success upon the character of the local staff, the financial resources, administrative initiative and support, and a thousand and one other considerations that have to do with the individual college. It would be unfortunate if any one procedure which may be called by the name of "honors" should seem to hold the center of the stage. The situation in this country, arising as it does from an entirely different ideal of the higher education from that recognized in other lands, is too complex to be explained by any one formula. For this reason all of the attempts mentioned above, and many more besides, will necessarily be made before we settle down to a standardized method. And when we do get the whole question settled we shall probably find that conditions have changed so that it is necessary to start all over again.

If one's point of departure for meeting our insistent problems of higher education is a comparison of higher education in this country with that in England and on the continent, and if one is disposed to compare the best results of foreign systems with the average or worst in ours, as critics are likely to, one would express the problem in terms of the need of highly developed fields of concentration leading up to competitive and comprehensive examinations. Some institutions in this country are committed to a curriculum in which each and every student is required to select a specialty in which he must stand a comprehensive examination before being recommended for the degree. In order that a homogeneous treatment of this nature for all the students in a college may be justified one must first be assured of a student body of high homogeneity. If a given college imposes requirements for its degree that demand a high degree of specialization with the scholar's devotion, that college must either be certain that all of the students are of the scholar's temperament, or look forward to a sad slaughter of those who are admitted to college but who do not possess this quality, or else in the course of a few years expect a gradual tempering of the wind to the shorn lamb. The first alternative implies a technique of selection of students for admission and of helping them to find an absorbing intellectual interest that is probably beyond the powers of any college faculty at the present time. The second is very simple and is easy to apply, but implies incompetence to meet the first alternative, and is unfair to the student who without any fault of his own finds himself in an institution that is not adapted to his ambitions or capacities. In any case a requirement for the Bachelor's degree that assumes a high degree of intellectual and temperamental homogeneity on the part of the entire student body raises questions of administration and of ethics that are by no means simple or easy to meet.

So far as Columbia College is concerned it is well to consider how far and through what media the new curriculum is adapted to meet these difficulties which other institutions are attacking in other ways. One of the most striking and important devices for stimulating the student with superior training and mind has already been tried out and can be reported upon. I refer to the achievement and placement tests which were given under favorable conditions to the incoming class in September, 1928 for the first time.

The situation which the placement and achievement tests have helped to meet may best be indicated by an illustration. If one considers two boys who have been trained in two schools, one in a large city school and the other in some little school about which the Department of Admissions has slight information, one will realize without much difficulty that although the boy from the small and remote school may on the whole be prepared to take up college work, his preparation in each subject cannot be accurately gauged by the information available in the admission office. One boy may be fitted for a distinctly higher grade of college work in French, for example, than the other, even though they have pursued the subject for the same length of time and have the same credit on the books of the Department of Admissions. fact the fitness for going forward with college work on the part of a boy of high ability who comes into college with a high record in elementary French is in sharp contrast with that of the plodder who just barely passes entrance examinations in the very same subject. This fact has been established with startling clearness by the reports of the Modern Foreign Language Study. Achievement tests covering the whole range of the modern languages so far as school work is concerned have been prepared enabling us to determine what point in the scale each student has reached. A known range of accomplishment on the test corresponds to the range of each course in French as given in Columbia College. Consequently each student is placed in the course which his competency indicates, instead of herding together at one level all of those who have met the entrance requirement.

In organizing the new curriculum the Faculty of the College emphasized the desirability of encouraging each student to enter the highest course for which he showed himself competent. In case he could in any way prepare himself to enter upon advanced work he was advised to apply for an achievement test in order that he might establish his ability. Re-

quirements or prerequisites met by this means do not carry points credit toward the degree but enable the student to do the work that he wants to do and which is more interesting and worth while for him.

In September, 1928 each student in the entering class was asked to take placement tests in the modern language which he presented for admission, in English, and in such sciences as he proposed to continue in College. He was also advised to apply for an achievement test in any subject in which he felt sufficient confidence in his ability and training to justify a trial. As a result of these tests it turned out that 48.6 per cent of the incoming class showed competency to enter upon some phase of College work in advance of the point indicated by the naked entrance record. In all, 1,115 semester hours, aggregating 37 student years of College work, were anticipated in this way. Four students anticipated 20 or more semester hours by means of these tests. A few students were demoted as a result of the tests, and were asked to take courses lower than the one indicated by the entrance records. Such courses were taken without College credit unless the student maintained a very high record in the course to which he was demoted. In such a case it seemed fair to the student to assume that there was a reasonable doubt as to whether he ought to have been put back into a lower course without credit.

The amazing result just mentioned of finding that half the freshman class could do more advanced work than would normally be expected of them seemed too good to be true. Of course the proof of the pudding was in the eating, and the success of the policy of advancing students as described rests upon the quality of the work that the students actually did in the courses to which they were promoted. Throughout the year the work of these students was observed, and at no time did trouble seem to be developing. In the early weeks of the Winter Session a few of the promoted boys expressed the fear that they were beyond their depth, but they were urged to fight it out and in every such case the student found himself completely before the middle of the year. After the final

examinations in May, 1929 a careful study of the accomplishment of the promoted students was made. It turned out that of all the students who carried the course to which they were promoted only one individual received a failure, and one other received a mark of D. All of the rest not only passed but the average of their work was distinctly above that of the class as a whole.

It goes without saying that one year's experiment is not enough to afford final conclusions. But unless all signs fail a device is here in process of development which will go farther toward stimulating the superior student to his best effort at the most critical period of his college course than anything that has come to my attention. Half of the incoming class were saved from taking some work that was too easy for them, and instead were placed where they had something to bite on. And they bit very vigorously. To save this group of our ablest students from the tendency to develop habits of loafing and from the boredom that comes from marking time in too elementary a class is certainly a contribution to the problem of the gifted student. This is one of the promising fruits of the new curriculum.

Evidence is rapidly accumulating from many institutions that the narrowly departmental course does not serve an effective purpose as a college requirement for so-called distribution of work. We are familiar with the fineness of literary sense and the sentiveness to the best and highest in the intellectual life which came to a few of the college students who went through the old requirement in the classics. But for every one who appreciated the best that the classics could give there were hundreds who got nothing except facility in avoiding the training that they were supposed to acquire. Unless I am greatly mistaken there is as large a percentage of our able students today who gain the results that the classics were supposed to furnish as there was when these subjects were required of all. Unfortunately they do not usually gain it through the medium of the classical languages, but it comes nevertheless. This example is mentioned as an instance of a case where the requirement of a narrowly departmental course

did not accomplish the result that was expected and desired. The same remarks hold in regard to mathematics and the sciences to fully as high a degree. The tendency in our colleges at the present time is in the direction of interdepartmental courses of a survey character, rather than explicit departmental requirements. The student is given the opportunity of finding himself intellectually rather than being subjected to a régime of forcible feeding. The latter method may preserve life but it does not make for a robust development.

In the new curriculum the principle back of the survey course is adopted without reserve in the requirement of the two-year course in contemporary civilization. It is also seen in the new course on the historical bases of English literature which is offered chiefly for sophomores in collaboration by the Departments of History and English. It is the conviction of both these departments that this course will afford not only the basis for an intelligent appreciation of the life and the literature of the period considered, but will give a solid foundation for scholarly work in both fields. In the same spirit the introductory course in the Department of Philosophy, which normally comes in the junior year, is a comprehensive course in the history of philosophy rather than a detailed study of one author or period.

In my report for last year the fact was emphasized that Columbia College does not assume that it has a homogeneous student body, for the simple reason that such is not the fact. It recognizes three types of student, for each of whom it feels a definite responsibility: the pre-professional student, the scholar, and the citizen-to-be who wants a good education. It is unnecessary to go into detail at this time as to the way in which the students with various professional ambitions are provided for in the new curriculum. Suffice it to say that the pre-professional programs are truly pre-professional, not professional, in their content. They are constructed so as to enable the student to find out whether his professional ambition is really suited to his tastes and abilities, and to capitalize

this ambition in affording adequate motivation for a serious and sound preparation for his life work.

It is now clear just how the new curriculum will accommodate itself to the needs of the person of scholarly temperament. In fact the whole tendency and momentum of the new plan is in the direction of urging the student into paths of intensive intellectual work, provided he is the kind of person who ought to be so urged. It does not make the mistake of calling every junior and senior in College by the name of research scholar, nor does it assume that the only kind of education that is worth anything is gained through intensive application to a narrow field of learning. Such may well be the case for men of the temperament which is adapted for that sort of treatment, but it cannot be said too often or too forcibly that the kind of young man who is coming, and whom we all wish to continue to come, to our colleges cannot be thrown wholesale into the mold that has served so admirable a purpose for so many generations under utterly different conditions in the older British universities.

The urge toward scholarship that the new curriculum provides finds its origin in two sources. One is inside the student and the other is outside him. That is to say, our experience with a carefully presented survey course assures us that it serves as a powerful incentive to more extended work in the direction in which the interest of the student is aroused. In the new curriculum the first two years contain a considerable number of survey courses, enough to justify the statement that the predominant function of the new course of study for these years is exploratory. By the end of the sophomore year the student has had an opportunity to gain an introduction to any field which his taste or ambition or plan for life work may indicate, and is ready for the more advanced work built on the work of the first two years.

The urge that comes from the outside is in the form of the requirement for the degree that each student shall obtain sixty so-called maturity credits. Maturity credit accompanies courses which follow work normally open to the sophomore class. Courses bearing maturity credit, then, imply two

years of College work, and an appropriate amount of specific preparation for the course in question. The number of maturity credits which a course carries is equal to the number of points toward the degree assigned to the course except in the case of courses bearing double maturity credit, to be mentioned later. Now if a student must acquire sixty maturity credits during his junior and senior years, all of which must be gained from courses of real junior grade, not much time or opportunity is given the youth who wishes to gain his degree by taking elementary courses all through his four years of collegiate work. During his junior and senior years he simply must take practically all of his work in advanced courses. A careful study of the nature of the so-called sequences of study taken under the old curriculum convinced the Committee on the Curriculum that with our student body as it is, any requirement of a specific subject of concentration beyond that implied by the requirement of sixty maturity credits was unnecessary. As a consequence the type of student described above as the citizen-to-be who wants a good education can get it in the manner just described, provided he has adequate ability, preparation, and willingness to work.

For the allurement of the young scholar each department either has or will organize facilities for study reaching as far out toward the unknown as is practicable. These more advanced courses will usually be given in the seminar style, and can be assigned point value appropriate to the intensity with which the student goes into the work. For example, it is entirely reasonable to expect a senior to ask that he be authorized to spend half or perhaps three-quarters of his time on medieval history and civilization, or experimental psychology, or Greek life and thought. In such a case the credit value of the work could be agreed upon as seems fair. The important point in this connection is that the Faculty authorized work of this kind to carry double maturity credit. Consequently the student who has one eye on his subject of study and one eye on his degree is enabled to amass his sixty maturity credits speedily through the medium of the seminar courses. This enables him to listen in on lecture courses

and the like for purposes of contrast with, as well as support of, his specialty, without worrying about the maturity credit which such work would bring.

For the youthful scholar the courses of the Graduate School will be open, either as lecture courses or as supervised study under proper guidance. In fact so far as one can see at the present time the new curriculum bids fair to accommodate itself almost automatically to the ideals of the college in the University that have frequently been expressed in my reports during the past ten years. If one were disposed to do so it would be possible to express the situation which the new curriculum brings about as a noiseless vet effective and automatic division of the student body into the categories usually referred to as "pass" and "honor" students. This separation is made, however, not by the organization of an honors college or group, but by the intellectual stimulation of the first two years of college followed by a broad and flexible opportunity for the student of scholarly interests to select his specialty unhampered by rules or petty limitations. It goes without saving that shot through the whole fabric of the student's work is the friendly counsel of his instructors and advisors whose judgment is always available as an aid and check to the judgment of the student himself.

The reorganization of the entire offering in the Department of English is of more than passing importance. Every college department in English has felt the difficulty in providing a backbone of sequential work in the college offering. Students can take an immense number of courses in English, each of which is a personally conducted tour through a certain area of English literature, without connection with other work that the student might be taking either in the Department of English or in any other department. In the new curriculum, after the freshman required course is either passed or omitted on the basis of the placement examination, the student may elect the combination course already referred to on the historical bases of English literature, or other isolated courses to which maturity credit has not yet been assigned and most of which will probably not

carry such credit. This group of courses, however excellent each may be by itself, does not afford anything that can be called sequential or progressive either in method or content. To provide for such a progression the Department has offered a three-year sequence, beginning with the earliest writers of the language and bringing the student up to but not including the time of Shakespeare. This is followed by two further years of English literature, the latter of which will be conducted in small seminar groups and which will bear double maturity credit. This three-year course will be progressive in method and so far as possible in content as well. order to emphasize the progressive character of the course it is provided that a student may take the first year as a unit if he so chooses, and withdraw at the end of that year with credit in case he finds that the three-year idea does not appeal to him. If, however, he elects the second year of the course he must carry it successfully through all three years in order to obtain credit for any of the work of the last two years of the course. Here is a real backbone. It is experimental to a certain extent, but if the Department is able to make the course vital in the minds of the students and to afford a live understanding of the development of our literature it is bound to be a significant contribution to one of the most vexing problems of collegiate education. If this project is successful its extension to the field of comparative literature seems a reasonable expectation.

The Department of Geology has improved the opportunity afforded by the adoption of the new curriculum completely to reorganize its offering. Starting with a survey course which also serves as an introduction to more advanced work in the subject, a carefully arranged series of courses is offered, one for each college year, leading directly to graduate work in geology. This arrangement gives the student ample opportunity to take the other scientific courses that are necessary for the geologist, and to take work in fields contrasted with his specialty as well.

In my report for last year the need for more extensive and carefully coördinated attention to the health of our students

was mentioned. To carry out the entire plan, with such modifications as further study would suggest, would require several years of time and a considerable endowment. It is a pleasure to record that the first step in this direction has been After conferences between the University Physician, the Director of the Gymnasium and various others, the University Physician made a budget request for a sufficient appropriation to afford an entire reorganization of the routine and recording of the physical examination which is given at the beginning of the year. This examination will be much more thorough than anything ever realized at Columbia and will afford an adequate point of departure for the consideration of all questions involving the physical welfare of the students. Each office, as, for example, the Gymnasium and the athletic office, can take from this comprehensive record the data it needs, thus making the office of the University Physician a clearing house for the entire body of information regarding the physical condition of the students.

With the decreasing value of the dollar and the increasing excellence of colleges in every state in the country the handicap imposed upon the boy from remote parts of the country who wishes to attend Columbia College has become increasingly heavy. No one would attempt to modify the tendency toward better work on the part of local colleges. At the same time Columbia College does not desire to become an institution for New York boys exclusively. Our geographical distribution has remained almost exactly uniform for five or six years, about 45 per cent of our students coming from greater New York and about 20 per cent more coming from a radius of about fifty miles of the city. In order to develop our clientele from out of town an appropriation has been made available for the first time in the year 1929-1930 founding fifteen scholarships to be awarded upon the nomination of high or preparatory school headmasters. These nominees must be acceptable to the Director of Admissions, who has been elected to membership on the Committee on Scholarships in order that the administration of these new scholarships may not become tangled up with that of our regular awards.

From the character of the nominations already made there is every reason to anticipate highly successful results from this source.

Little by little our scholarship funds are being augmented. so that now the Committee is able to make awards to a little more than half of the applicants for financial assistance whom we would like to help. During the year just passed an additional Alma Mater Scholarship of five hundred dollars has been founded, and two McGrue Scholarships of about four hundred dollars each have become available. Our loan funds are most useful and are adequate for the demands made upon them under the present plan of administration. Those in charge of these funds have been very slow to authorize loans of any considerable amount for members of the freshman class, on the ground that a boy would be certain to overborrow before the end of his course if he began to draw heavily on loan funds in his first year. The present policy of vacating all scholarships not explicitly awarded for the entire four years by the wish of the donor, and asking seniors to transfer their application for financial assistance to the loan funds seems sufficient to enforce upon the student the idea that his college education costs real money. It must be said, however, that since the medial amount that a student in residence spends each year is between twelve and thirteen hundred dollars, while the scholarship awards are in most cases only three hundred dollars, this point is impressed with sufficient force upon most self-supporting students before their senior vear.

The administration of our dormitories has been greatly improved by the appointment of members of the teaching staff as dormitory counselors. The old plan of a Hall Committee of residents never operated with marked success, largely on account of the difficulty in obtaining continuity of service on the committees. Nearly a year was required to acquaint a committee with the conditions and the possibilities of their position. Yet it was rarely possible for any significant number of committee members to continue for a second year. With a nucleus of young and interested teachers to mold

and direct affairs another step has been taken toward making the dormitories serve the social purpose for which they were intended. The addition of a hostess for the organization of pleasant little dances and other parties has also lent a touch of refinement to dormitory life that has not always been obvious to the casual observer. The weakest spot in Columbia College at the present time is its lack of a fine and constructive social life. With our situation in the midst of the city as it is, and with a large proportion of the students who are in residence straining every muscle to earn money for their maintenance, an exceedingly difficult problem is presented. It is certain that every year sees a little gain in our attack upon it, but we have far to go in making the conditions for a normal and healthy companionship among our students all that we would like to have them.

Whether one likes it or not the fact remains that when a college graduate attempts to find and to hold a position either in business or in the professions his background and social qualities are the first facts concerning him that his superiors and associates observe. If these are satisfactory, his intellectual abilities have an opportunity to assert themselves. But without these superficial attractions the more solid qualities never have a chance. If this is so, and if the College pretends to make the college residence as complete a preparation for the life work of the student as possible, then it cannot fail to support morally if not financially those extracurricular activities of an athletic, literary, and social character which do more for the development of the aspect of the student that one first sees when one meets him than all of the courses in the entire curriculum.

During the past year a few moves have been made which help to meet the situation just mentioned. In order that the freshmen might learn something about the College that they were entering, and, what is even more important, that they might come together in a group every week, lectures at which freshmen were required to be present were held every Tuesday during the Winter Session up to the Christmas recess. These assemblies were addressed by Columbia speakers who know

our Columbia life, rather than by distinguished men from the outside. They were distinctly successful both as lectures and as common meeting places for the freshmen, and will be continued during the coming year.

The appointment of the counselors and the hostess in our dormitories has already been mentioned. On the initiative of one of the counselors the students on one floor of John Jay Hall contributed the rental of a corner double suite of rooms on that floor as a common lounge and meeting room. The room served a useful purpose, and whenever there is some one person or group who will be responsible for the proper management and use of a meeting room of this kind the idea is a good one. It ought to be mentioned that the Gemot in Hamilton Hall which was fitted up and presented to the College by the Class of 1881 as a common meeting room, has ceased to function for the use intended, and has been used during most of the present year by the Bureau of Collegiate Educational Research for clerical work in connection with examinations, and for the installation of machines which are used in statistical studies. Not for several years had the Gemot served the useful purpose that the donors intended, so that its diversion to other uses is not a loss so far as our actual social resources are concerned.

During my absence for a portion of the Spring Session the Dean's Office in Hamilton Hall was renovated and converted into a suite which possesses not only the dignity appropriate to such an office, but the kind of atmosphere which contributes its mite to the education of every student who enters the room. Some of our recitation rooms are decorated with portraits which also lend a little of the touch which unconsciously affects those who come under its influence. Much more can be done in this direction to the end that we bring about in education the influence which corresponds to the "beauty of holiness" in the church.

It is not fitting in this report to predict accomplishment for the remote future. For the immediate future our tasks are clear and lie in a direction which certainly leads to larger contribution on the part of the College to the vexed problems of American life. During the coming year the most pressing work

will undoubtedly have to do with the elaboration of details, in order that each department and each course in the College may take its place in the new curriculum effectively and harmoniously. It is also important that so far as possible every opportunity be improved to enrich the extracurriculum activities of our students. A score or more of the teaching staff are alert in their efforts to do all that they properly can to make the college life in Columbia outside the library and the classroom yield an elevating influence to the students of the College. With so many, both among students and teachers. who are awake to the situation and eager to help in its solution the outlook is encouraging. But the magnitude and inherent difficulties surrounding the problem in an urban college are so great that the task will never be completely done. This does not make it less insistent nor does it give cause for discouragement that it is never completed. Like every living organism its very life makes any completed task concerning it impossible. One can complete his care for a live organism only by burying it or by quitting the job. Columbia College is too lively to bury and too interesting to quit.

Respectfully submitted,

HERBERT E. HAWKES,

Dean

June 30, 1929

SCHOOL OF LAW

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As Dean of the Faculty of Law, I have the honor to submit the report of the School of Law for the academic year ending June 30, 1929.

The lawyer and the law are so closely related that they react upon each other. Change the law and you change the lawyer. Change the lawyer and you change the law. Consequently the education of lawyers is of prime importance in the development of the law. If we would improve legal science we must also improve legal education. Before we can improve legal education we must determine its effects upon the lawyer and the law and discover those defects which can be obviated by education. Changes in legal education are useless unless they are likely to produce better lawyers or better laws or a more satisfactory administration of justice. The problems of legal education and the problems of lawmaking and law administration are thus interrelated to such an extent that they should be considered together.

In my report for the year ending June 30, 1928 I sketched the growth and expansion of the School under the administrations of Dean Stone and Dean Jervey and summarized, with considerable detail, important changes in the educational policy of the School which had occurred since 1925. I also explained briefly a program, tentatively agreed upon, for the reorganization of the School and the revision of the curriculum. This program was inspired partly by a desire to obviate major defects in legal education for the purpose of better preparing prospective lawyers and judges to discharge their functions in society, and partly by a desire to encourage a reëxamination

of legal doctrine and practices in the light of the other social sciences in order that the nature and function of law may be better comprehended, its results more accurately evaluated, and its development kept in closer harmony with the trends in present-day culture.

The many and important changes which are taking place in the economic and social structure, with the concomitant shifting in philosophic thought, are creating new problems of law. Their solution calls for an understanding and technique which contemporary legal education does not afford. Legal concepts born of a passing order are losing their utility, and devices for lawmaking and law administration designed to function in a simpler society are breaking down under the complexities of modern life. That this is so is evidenced by the popular demand for remedial legislation, the increasing non-observance or disregard of law, and the growing tendency to invoke non-legal agencies in the regulation of business and in the adjustment of disputes.

While legislation is a useful device for changing the law, change does not necessarily mean improvement. Haphazard legislation, not infrequently conceived in ignorance and nurtured by various and oftentimes conflicting prejudices, is not likely to remedy the situation. In 1923 it was estimated by William P. Helm, in an article in The Budget, that the total of statutory laws and ordinances in effect throughout the United States exceeded 2,000,000. In 1924 it was stated by William M. Bullitt, in an article in the American Bar Association Journal, that the statute law of the forty-eight states filled 3,576 volumes of 1,592,000 pages. Since 1924, according to a count made by the Legislative Reference Service of the Library of Congress, 52,722 acts and resolves, covering 96,317 printed pages, have been enacted by the state legislatures alone. Nevertheless the dissatisfaction with law continues. The recent activities of bar associations and other organizations looking toward change, the creation of committees and commissions, both public and private, to make investigations and recommendations, and the establishment of research institutes to collect pertinent data, reflect a widespread demand for law reform and the reform of lawyers.

Experience indicates that the difficulty is due not to a lack of change in the quantity or content of the law, but to a lack of change in the basic assumptions upon which lawmaking and law administration have proceeded. Notwithstanding the enormous amount of legislation which has been enacted, a large part, if not most of the law, has been and is being made by the courts. It has been estimated by an established law book company that there are 1,500,000 reported decisions of the courts and 25,000 new decisions yearly. In the case of judge-made law, the demand for certainty has led to the doctrine of precedent. The judges have the power to declare the law to be what they will, but because of the retroactive effects of their decisions they have been disinclined to disregard previous determinations except in cases of compelling necessity. Also the development of the common law through judicial decision has been considerably impeded by the political theory of the separation of the legislative, judicial, and executive branches of government. Consequently most decisions, except when governed by statutes, have been to a great extent the result of prior decisions and have in turn largely controlled the decisions which followed. The observance of precedent has compelled lawyers to study the reported cases in order to predict the future action of the courts. Since lawyers are generally more concerned about cases which have not been decided than about cases which have been decided, this practice has resulted in the formulation of many generalizations of law which, although based upon decided cases, include situations which have not been before the courts. In time, these generalizations are accepted by the profession as rules of law and thus influence future decisions concerning all the situations which fall within the generalizations. The decisions upon which a generalization is predicated not infrequently rest upon an expressed or implied social policy which, if appropriate in the cases actually decided, is not appropriate in other cases included within the generalization. Moreover, the social policy underlying the decisions upon which a generalization is based, even though desirable at the time, often ceases to be desirable because of new knowledge or

changed conditions. Nevertheless, the social policy, established by the acceptance of the generalization, persists. Thus stare decisis has served to maintain reasonable certainty in the law, but it has also led to an intellectual inbreeding which has tended to perpetuate ideas which have long since lost their social utility. Moreover, the habit of lawyers in looking to reported opinions for the answer to legal questions has tended to deprive the law of the benefit of new ideas in testing the validity of rules of law. Even when courts are inclined to formulate new rules of policy, their decisions too often rest on little more than the limited experience of the particular judges who make the pronouncements. Seldom do the courts utilize the knowledge of the economist, the historian, the psychologist, or the philosopher in determining social policy. The profession has developed no technique by which such knowledge is made available. a result, legal standards are often inconsistent with actual experience.

An alternative to the common law is codification. To one familiar with the history of codes, codification offers, at most, only temporary relief, but a demand for codification is not unlikely if existing conditions continue. The chief advantage of the common law over a code is its greater elasticity. If the common law is to prevail, its elasticity must be preserved in order that it may be adapted to the needs of the times. There is nothing revolutionary in this idea. Absolute certainty in the law is impossible. Change there must be. The history of the common law is a history of change. Whether it be change for the better or worse depends largely upon the extent to which its direction is controlled by the exercise of an enlightened intelligence. The function of the lawgiver is to maintain certainty when certainty is more desirable than change and to bring about sensible change when change is more desirable than certainty. An overthrow of stare decisis is not necessary to the proper development of the common law. It is the abuse of stare decisis which threatens its usefulness. Reasonable certainty in the law is not incompatible with sensible change, but if the best results are to be

obtained, use must be made of all available knowledge outside as well as inside the law in determining when change is desirable and the form which it should take.

Where efforts have been made to bring about change in the law, whether by judicial decision or by legislation, thinking about law has been largely in terms of how men ought to behave, regardless of whether the law actually brings about the desired behavior. Lawmaking without due regard to the problems of administration and enforcement has, no doubt, been encouraged by the separation of governmental powers, nevertheless it accounts for much of the ineffectiveness of existing law. Law is merely one device for social control and as such it is useful only when it works. It is time that legal institutions were evaluated in terms of their effects in order that the law may be more usefully employed. Until legal postulates and juristic methodology are subjected to a more critical examination and revision in the light of existing knowledge, improved conditions are not likely.

The universities cannot alone alter the ideas or methods of those who make and administer the law, but they can, through their law schools, influence the thinking and behavior of future generations of lawyers and judges, and they can, through their facilities for investigation and study, shed much light upon the social order and its problems.

The curricula of American law schools, as now commonly organized, are built around the traditional concepts of the lawyer. The subject matter of the curricula consists almost entirely of court decisions and statutes, or texts and treatises based upon court decisions and statutes. The prevailing method of instruction is called the case method because the student obtains his knowledge of the law by a study and discussion of cases. By a process of induction the student, with the aid of the instructor, formulates generalizations of law based upon the cases examined, which generalizations are called principles or rules. Proceeding from these generalizations, by a process of deduction, the answers to mooted questions are determined. Thus the intellectual inbreeding goes on. In the course of three years the student becomes

familiar with various legal concepts, he acquires legal habits of thought, he develops a fair skill in the use of legal data, and he obtains considerable knowledge of the history and meaning of rules of law. The instructor devotes himself assiduously to his teaching but rarely extends his research beyond the collection of court decisions and statutes. Little thought is given to the validity of established legal doctrine. Little time is spent in ascertaining how the law is actually working. Slight effort is made to influence the development of law through proper legislation or judicial decision.

If the university law school is to perform its proper function in society, it cannot remain content with merely schooling its students in legal doctrine and lawyers' technique. A knowledge of legal doctrine and lawyers' technique is important. Such knowledge is indispensable to one who expects to engage in practice, but if the law is to be made more useful in the regulation of human affairs, the lawyers and judges of the future must also acquire an understanding of legal phenomena, an appreciation of the social implications of rules of law, and a knowledge of their actual effects, which cannot be obtained from the literature of the law alone. Other sources of information and ideas must be provided and a technique of lawmaking and law administration must be devised which will facilitate the use of all available knowledge.

The university law school can render a valuable service by making more available for the use of the lawyer knowledge derived from other fields of learning, and by training its students to make use of such knowledge in their thinking about problems of law. It was with these ends in view that three years ago the Faculty of Law undertook a reorganization of the School and a revision of the curriculum. The academic years 1926–1927 and 1927–1928 were spent in study, in discussion and in planning. The year just ended was largely devoted to making effective some of the changes which were deemed desirable and feasible. In this respect, the year under review marks the beginning of a new epoch in the history of the School.

A large part of the program for the reorganization of the School is devoted to research and the non-professional study of the law. The solution of many perplexing Research problems of law requires a more thorough marshalling and examination of the facts which give rise to the problems and of the facts concerning the effects of the law in actual operation. Research of this kind, if properly done, will not only put in available form valuable information for use in lawmaking and law administration, but will also make possible the inclusion within the curriculum of illuminating data not now contained in legal literature. Thus the work is conceived to have practical value for both the lawyer and the law student. The chief obstacles to be overcome in making such work effective are the finding of men who are willing and competent to undertake the work and the securing of funds sufficient to finance it. Considerable progress has been made. and the effects already apparent upon the thinking of both the Faculty and the student body confirm the belief that such work should be carried on in conjunction with a professional school.

Since January 1, 1928, special appropriations aggregating \$156,000 have been obtained from foundations for the purpose of financing various research projects now nearing completion or well under way.

The first of the projects to be started was a study of recent trends of corporate development under the direction of Professor Adolf A. Berle, Jr., of Columbia Law School, with Mr. Gardiner C. Means as associated economist. This study has been financed by a grant from the Social Science Research Council. It is nearing completion; the resulting volume with subsidiary studies will be ready for publication in the spring of 1930.

After the war, the economic development of the country made it evident that a new grouping of interests amounting to a major change in the economic basis of civilization was taking place in the United States. The focal point of this change was the commercial corporation which in the postwar era appears to have become at once the principal mechanism

for carrying on business enterprises, a great medium of property tenure, and an outstanding mechanism of economic control. It was thought that the trends reflected the situation suggested by the President of the University when he observed that an era was dawning in which the major interest of man had turned from political to economic institutions. Obviously such a movement was bound to have important effects on the law of corporations, corporation finance and business organization generally.

It has been possible as a result of this research, first to compile a new set of materials in the general field of corporation law (at present privately printed by the Law School and used as materials in the course on corporation finance); to use advanced students for legal research in this connection; to connect the research project with seminar work in the Law School; and thereby to enrich the available material for use in the study of business organization and corporation law and finance. At the same time through its economic side, statistical material, analyses, actual histories of corporate developments, and individual contact with a considerable number of institutions have made possible the examination of rules of law in action as well as in books. A tentative statement of the findings is to be submitted to the American Economic Association at its annual conference in December, 1929, so that the results will be subject to the criticism of the economists, and certain of the leading lawyers of the country.

Following the policy adopted at the outset, no final results are to be announced until the project reaches completion. It is, however, apposite to say that the research will show: (1) the existence of a tremendous bulk of property interests now held through and in the form of corporate securities, accompanied by a trend of growth indicating that within a relatively short period of time this will become the dominant method of property tenure in the United States analogous to such systems as the feudal tenure known in the Middle Ages; (2) that this situation has been worked out through the medium of a few very large corporations, the control of vast property interests thus being centralized to a degree apparently un-

known in modern history; (3) that as a result of the corporate institution itself and the legal rules affecting it, both the legal and economic analyses of corporate securities must be radically revised; and (4) that much of the law of corporations is in the process of a change from rules aimed to cover private business transactions, to rules of public law establishing the managements of corporate property as modified trustees in the public interest.

An interesting by-product of Professor Berle's research is the symposium in the law and practice of corporation finance which has been planned for the Summer Session of 1930. This symposium will be open to graduate students in law and undergraduate students of exceptional ability, and to lawyers, law teachers, economists, bankers and others engaged in financial work. It is conceived as a means of bringing into touch lawyers and bankers or other financiers with a view to investigating certain current problems upon which lawyers are required to advise and financiers to act, but to which the law has not yet provided definite solutions. A number of prominent lawyers and bankers in the city will be invited to take part in the discussions.

No field of the law of major importance has received so little attention as that relating to the family. Here lies almost virgin soil to be tilled. Preliminary to any attempt to evaluate family law, it seemed desirable to reclassify the materials in order to uncover those areas of the law having important but unrecognized effects upon the family and to disclose those problems which were deserving of investigation and study. September, 1928, a comprehensive survey of the entire field was begun under the direction of Professor Albert C. Jacobs of Columbia Law School and Professor Robert C. Angell of the Sociology Department of the University of Michigan. The work has been financed by a special appropriation from one of the foundations. This survey has been completed and the report will be published in the near future. A complete catalogue has been made of the points of contact between the family and the law which reveals an amazing body of law appertaining to the family but hitherto unrecognized as such. The materials

have been classified both in terms of the situations involved for use in connection with further research and in terms of legal categories for curriculum purposes. A bibliography has also been compiled which should be of value not only to lawyers but to students in the other social sciences desiring to make special investigations in the field. For the purpose of demonstrating the desirability of collecting data concerning specific situations, and for the purpose of illustrating how such data may be profitably used in testing rules of law, an effort has been made to ascertain the facts concerning the relationship between husband and wife in regard to the wife's services and earnings both within and outside the home in New York State. This study has been made with particular reference to the financial adjustments between husband and wife, in the various social strata, for the purpose of evaluating the rules of law concerning the services and earnings of married women. The work which has been done should not only encourage and facilitate further study of the family and family law but it should greatly improve the approach to the subject by the professional student. Already the conventional law course dealing with little more than the rules of law relating to marriage and divorce, annulment, and the status of infants, has been changed to include other and important subject matter which gives a clearer perception of the problems involved in family law and their social significance.

There has been a distinct tendency of late to break down the artificial barriers existing between the various fields of learning. Nowhere has there been a more destructively efficient compartmentalization of learning than in those fields related to what is commonly designated as the "crime problem." The criminologist, the psychiatrist, the penologist, the criminal lawyer, the police and others have approached the problem from different angles. Each has offered explanations and proposed solutions based upon his own experience, with resulting confusion and oftentimes inconsistent conclusions. Only recently have efforts been made to coördinate their separate knowledge. There is but one stimulus, antisocial human behavior, which creates these different types of

intellectual activities. Despite this, departmentalization of learning in these fields, originally created merely for the sake of convenience, has attained the aspects of absolute reality and consequent inherent soundness. It has become more and more apparent that progress along all of these lines will be retarded so long as there is no integration of the various fields of endeavor.

Pursuant to a request and grant of one of the foundations, the School of Law has undertaken a survey for the purpose of determining whether it is desirable to establish an institute of criminology in this country and if so to plan such an institute. The request is evidence of the increasing consciousness of the almost vital necessity of integration. It also indicates a recognition of the fact that such intellectual integration demands some degree of physical consolidation.

The survey is an effort to ascertain what scientific and educational work in the fields of criminology and of the administration of criminal justice is prerequisite to the solution of crime problems, and to design an institution in which such work may be done. The survey is being made by a staff of specialists in the various fields under the direction of Professor Jerome Michael of Columbia Law School. A report will be published during the summer or fall of 1930.

As a separate project, financed by special funds, Professor Raymond Moley has been engaged in directing a study of the relative advantages of the system by which a felony prosecution is initiated by an information filed by the prosecutor, as compared with indictment by a grand jury. The information system is in operation in one half of the states and a great number of advantages have been claimed for it. This study is to check these claimed advantages by a collection and measurement of the facts. Actual field work on the study has been under way for some time and is now practically completed. The data have been collected concerning all felony cases initiated during 1928 in California, Connecticut, Michigan, Missouri, Indiana, and Iowa, where proceedings are initiated by information, and in Georgia, Illinois, New York, Pennsylvania, and Virginia, where pro-

ceedings are initiated by indictment. The interpretation of the data collected should be completed by 1930.

The automobile has raised new problems for the law. According to recent estimates, more than 180,000 people were killed, and over 6,000,000 were injured in automobile accidents in the United States during the last decade. The annual toll of deaths and injuries steadily increases. During 1928 alone. 27,500 were killed and 962,000 were injured. As a result. there has been an enormous increase in litigation. The court calendars are clogged with tort cases most of which have arisen out of motor vehicle accidents. The trial courts in the more densely populated centers are one to two years behind with their work. The situation had become so bad in New York that in 1927 the Special Calendar Committee, appointed by the Appellate Division of the Supreme Court, First Department, suggested as a possible solution some form of compulsory insurance, similar to workmen's compensation, to be administered by an administrative board. In any event, existing rules of law and the machinery for their administration are proving inadequate to cope with the situation.

During the year just ended, a grant by one of the large foundations has made possible the formation of a committee to study the whole problem of compensation for automobile accidents and methods of administration. The work is being carried on under the auspices of the Columbia Council for Research in the Social Sciences. Professors Joseph P. Chamberlain and Noel T. Dowling, of Columbia Law School, are members of an executive committee of five who are directing the work. The study is concerned with the present basis of liability and methods of administration and also with proposed remedies.

In addition to the research projects outlined above, a number of studies, financed by University funds, are being carried on.

Three lines of research in the general field of security law are being conducted by Professor John Hanna of Columbia Law School. These deal respectively with non-legal materials in security, the recording of security instruments, and coöperative marketing.

The first of these studies is designed to ascertain whether the legal principles of security law heretofore studied in such courses as suretyship and mortgages can be presented by cases drawn exclusively from a relatively few of the most important business fields, and, second, what non-legal materials can profitably be studied in connection with the selected cases. Some of the legal and non-legal materials collected will be used in mimeographed form in the course on security during 1929–1930. If the experiment is successful, the materials will be elaborated and published.

The second study was initiated because of certain legislative proposals for the extension of recording requirements, not-withstanding the growing belief that because of the changing bases for the extension of credit, the recording of instruments has lost much of its former significance. A detailed survey of the recording laws of all the states (other than the laws dealing with real estate) is being made. Also the opinions of a large number of lawyers and business men who have actual knowledge of the working of these laws are being obtained. A report on this project is expected in the near future.

The third study was prompted by the increase in the magnitude of business done by coöperative marketing associations. A careful digest of all the coöperative laws of the United States has been prepared together with an exhaustive collection of cases on various phases of coöperative marketing. This material is being assembled into a treatise on the law of coöperative marketing associations. Two further lines of inquiry in this field have been proposed. One is concerned with the essential characteristics which entitle a corporation to the special privileges and immunities of the coöperative statutes; the other deals with the relation of coöperative associations to non-coöperative subsidiary corporations. Two articles have already been published dealing with recent farm legislation, particularly that which established the Federal Farm Board.

The analysis of the psychological and logical foundations of the rules of evidence which was begun in 1927–1928 by Professor Jerome Michael of the Law School and Mr. Mortimer

Adler of the Department of Psychology was continued during last year. The completion of this work will be temporarily delayed due to the criminological survey of which Professor Michael is director.

The admirable collection of source materials in Roman law begun by Professor Hessel E. Yntema and Mr. A. Arthur Schiller several years ago was continued during last year by Mr. Schiller. A large quantity of source and secondary materials have been examined, among them the recent archaeological discoveries from the various Roman provinces in Egypt, Africa, and Asia Minor, which throw new light upon the legal problems of the Roman Empire.

The study, begun three years ago, of the process of valuation as practiced by judges and commissions in ratemaking, taxation, corporate organization, damages, and other fields of the law, was continued during 1928–1929. This study has been directed by Professor James C. Bonbright and has been carried on by members of the Faculty and graduate students of the Law School in coöperation with members of the School of Business. A number of monographs discussing the decisions and administrative practice in the separate fields from the viewpoint of the lawyer and the economist were published during the year. Upon the conclusion of this investigation, the materials collected will be coördinated in one volume as a basis for critical analysis of the judicial concept of value.

In connection with the research activities of the Faculty of Law, I wish to report that during the year Professor Richard R. Powell has been engaged in redrafting the real property statutes for the state of New Jersey. This work will be finished in January, 1930. Because of his conspicuous ability in the field of property law, Professor Powell has recently been appointed Reporter on the subject of property for the American Law Institute. I also wish to report that in September, 1928, Professor Roswell Magill, who in 1925 drafted the income tax law for Porto Rico, was invited by Governor Towner to redraft the entire body of revenue laws. Professor Magill went to Porto Rico where he began this work, but due to the hurricane its completion has been postponed.

Apart from research in law, individual members of the Faculty have been engaged during the year in various research projects for the collection of materials for teaching purposes. Continuing the policy inaugurated several years ago, members of the Faculty engaged in the preparation of new source books have been provided with research assistants in order to accelerate the work. Seven new source books were published during the year, and work was begun on several others which will be published next year. These books will be discussed later in this report in connection with the revision of the curriculum.

Among the significant studies completed during the year, is the exhaustive investigation of the grading system conducted by Mr. John L. Grant, Assistant to the Dean. Mr. Grant's analysis of Columbia Law School grades over a period of years and the disclosure of the unreliability of grading methods heretofore employed in this school, which methods are the same as those commonly used in other law schools, have aroused the interest of law teachers in a number of the leading schools throughout the country. This study should lead to a marked improvement in the methods of measuring educational achievements. Mr. Grant's findings have already led to important changes in the grading system employed in this school and other institutions now have the matter under consideration. His conclusions and recommendations will be published in the Columbia Law Review in November, 1929.

In my report for the year ending June 30, 1928, I discussed at length the bases of the changes which were being made in the curriculum. Since the publication of that report a number of new source books have been printed and the preparation of others has been begun. The Law School Bulletin for 1929–1930 shows that approximately forty per cent of the courses are being given with these new materials.

The changes in the curriculum which have been made are based upon the assumptions that a classification of the materials in terms of the activities or relations involved instead of the traditional legal categories, would give the student a clearer perception of the underlying economic, political or other social problems, and that the inclusion of some non-legal data would enable the student better to understand the problems and grasp their social significance. It is believed, and this belief underlies the whole Columbia project, that such an approach to the law will not only give the student a better understanding of legal phenomena but it will also better equip him to handle intelligently his professional business when he is admitted to the bar. That these changes do not operate to lessen the student's knowledge of what may be termed strictly professional matters is evidenced by the unusually large proportion of the class graduating in June, 1929, who passed the New York bar examination with high scores. I mention this fact not because I regard the results of bar examinations as a proper criterion for measuring the educational value of the kind of training which is being given, but solely for the purpose of dispelling the possible idea that such training will, in its effect, impair the student's knowledge of rules of law.

Among the first of the new courses to be offered in the School is Professor Berle's course on the law of corporation finance. This course was given with mimeographed materials in the spring of 1928 and again during last year. The course was a success from the start. The materials for the course have now been printed and will be used during 1929–1930. The book presents an excellent combination of legal and non-legal materials and is rich with illuminating comments and suggestions by the editor. The organization of the materials is admirably described in the following excerpt taken from the Preface:

The various problems are presented in two main groups.

The first part has to do with the objective study of a corporation and the various securities through the medium of which its financial life is carried on. The approach is that of the outsider—as though the student appeared from a foreign country and then, learning that his savings were to be invested in corporate securities, aimed to find out first who or what a corporation was, and, if it were not a unit, who the various groups of interested parties might be; the parties responsible for carrying on the

company's affairs; the various participations or claims upon the earning power and assets of the corporation commonly known as stocks and bonds; the incidents of such securities; and the relation which a holder of them assumes to the corporation or to the various groups included in it.

The second part retraverses the same ground, but instead of being an analytical study in still life, is a study of the financial operation in action. It consequently concerns itself with the origination and promotion of the corporate enterprise; the selection of the financial media—stocks or bonds; the financial processes of flotation and sale; the part played by the investment banker; the protection, if any, afforded to open market values; the use of the corporate mechanism to acquire control over other corporations—mergers, subsidiary corporations, etc.

Professor Berle's course on the law of corporation finance represents only a part of the work in the general field of business organization. In addition two other courses are being offered which deal with the various problems of management and risk involved in the fields of agency, partnership, and corporations. A tentative collection of materials dealing with the management aspect of these devices for carrying on a business enterprise was prepared and printed by Professor Roswell Magill during the year. These materials, and the materials dealing with risk, will be completed and published during 1929–1930.

In connection with the work in the general field of business law, it should be noted that during the year Mr. H. A. Inghram, a graduate of the Law School and at present an instructor in accounting in the School of Business, gave a series of lectures on accounting for law students. The students found these lectures to be very helpful in their work in such courses as corporation finance and taxation. As a result, Mr. Inghram has been invited to prepare the materials for a short course on legal problems in accounting which will be offered in 1929–1930. The object of this course is to give the student such knowledge of accounting as will enable him to deal intelligently with financial statements and records involved in legal problems. Emphasis will be placed upon the use and methods of interpreting such documents rather than upon the technique of preparing them.

Professor Llewellyn's book of cases and materials on sales, completed during the year, is unique in its organization and content. Although published under a familiar title, the book is anything but like others which bear its name. It differs from other books on sales in two major respects. The cases and other materials are organized not in the traditional fashion around the sale, but around the contract for sale, which is today the focus both of litigation in the field and of the growth in the law. This has meant a radical rebuilding of the course, and one which bridges so conveniently from the contracts course, that the next step may be to organize the study of contractual conditions as a part of the course in sales.

The second point of major difference is, alongside the accepted emphasis on legal doctrine, an equal stressing of the facts of the cases, of their business background on the one hand and of the meaning of the rules of law to the practicing lawyer when he advises his clients, on the other. This has meant the introduction of a considerable body of information and discussion in the book which, whether it be classed as legal or non-legal, is a striking departure from tradition.

The book further differs in a number of respects from the traditional casebook, whatever the field. A few of the leading cases under each topic have been fully reported. Instead of reporting a larger but limited number of additional cases in full, some six hundred digests of cases have been included, each digest ranging in length from one-half to two pages. thus giving the student a larger sampling of case materials and a wider basis for discussion and for discrimination in a field of complicated facts. In this way, the number of decisions available for study has been more than doubled. As to both principal cases and the digests, and also in regard to most of the sections of the Uniform Acts included in the text, the book presents in addition a largely Socratic discussion much like that common in the classroom. The aim throughout is to provide the student in advance with substantially all the information he may need, so that the hour can be devoted primarily to studying the implications of the information both for lawyers and for society. Finally, the book attempts to carry along with the study of the law of sales, a sustained investigation into the dynamics of case law. This approach illuminates the specific subject matter and at the same time prevents the inquiry into the processes of case law development from being lost in abstraction. The result is a more effective technical training as well as an understanding of law as a liberal art.

Another of the new courses offered during the year is Professor Powell's course combining parts of the subject matter formerly included in future interests, wills, and trusts. combination of materials proved most effective from a teaching point of view. The course was regarded by the students as being one of the best courses offered in the School. During the year Professor Powell collected and printed in one volume the cases and other materials dealing with those parts of the course not covered by his casebook on future interests which was published in 1928. Together these two books present the problems arising in connection with estates, and especially those problems which involve living trusts, testamentary trusts, and insurance trusts. The laws of future interests, trusts, and wills are integrated with a substantial saving of time and a great increase in the comprehensibility of a field of law which is of rapidly increasing importance. A beginning has been made in the incorporation of non-legal material dealing with current facts and practices in the handling of trust business. While Professor Powell, in the Preface to the second book, stresses the experimental and tentative form of the materials, the work reflects great credit upon his scholarship and industry.

In no field of human learning is the modern student more tightly chained to the past than he is in the law. Nevertheless the subject of legal history has been sadly neglected by most American law schools. Either the subject has been relegated to special courses for graduate students or else omitted altogether. In 1927–1928 the Faculty of Law began experimenting with a course for first-year students designed not merely to give them a proper historical background for the study of law but also to give them some training in the interpretation

and use of historical data. These experiments culminated during last year in the publication of Professor Julius Goebel's Cases and Materials on the Development of Legal Institutions, an excellent work, which should be of great assistance to the beginning student in understanding how the common law system has grown up and in sensing those forces which are most likely to control its future development.

The following passages from the Foreword explain the organization and purposes of the book:

. . . as a result of theories of precedent, English and American lawyers have developed a technique peculiar to themselves in dealing with cases that satisfied ordinary professional standards of historical method. This has resulted in the highly artificial situation that the history of our law, so far as we may be said to have an historical literature, has become a history of cases, and while it is true that a case or line of cases has always occupied a predominating position in our legal evolution, a history of cases is at best a mere fragment of a much richer record. Only by a consideration, on the basis of available knowledge, of all the factors that have entered into the development of a legal institution or legal rule can we be said truly to reconstruct the past. . .

. . . A strictly scientific mode of attack would, no doubt, have been to consider at the outset what we have denominated the "Processes of Legal Development" (Custom, Precedent, Legislation). For purposes of instruction in historical method, however, it is useless to consider these processes abstractly, but we must deal with them upon the basis of a well-grounded substructure of fact. In these circumstances, therefore, after a preliminary inquiry into the question: "What is the common law," it has seemed feasible to commence our search for the answer to this difficult query by undertaking the study of the influence of political history upon legal developments both in England and America. This point of attack is particularly useful because in both countries the early growth of the law was inextricably bound up with political events and political theory. Thus in England, the rise of the King's courts, the jury, the system of actions and the policy of a uniform law are all phases of an attempt to centralize and strengthen monarchical power; and in America the introduction of the common law was the result of political and legal theories that had their roots in the early manoeuvres of English kings for supremacy. Political events likewise influenced the struggle of the courts for independence from administrative control and for this reason we shall consider the great battles of the seventeenth century which mark the eventual emancipation of the judiciary. With these data in hand we are in a position to evaluate more or less accurately the historical importance of the so-called processes of legal development and to determine how far

these processes have jointly operated in the growth of English and American law.

In the final section of this volume we shall consider in respect of certain definite subject matter, the influence of intellectual, social, and economic factors upon legal rules. It is not pretended that this subject matter is more than illustrative of how the law operates as a form of social control, or that our materials exhaust the available learning on the subjects chosen. At best it is intended to point the way of dealing with historical problems whose number are legion and whose solution yet awaits the historian.

The source books published by Professors Berle, Magill, Llewellyn, Powell and Goebel, dealing with different fields of law, illustrate the kind of changes which are being made in the curriculum. Only by an examination of the organization and content of specific courses can the value of the Faculty's efforts be determined and for this reason I have described these courses in detail. Other courses have been or are being revised along similar lines. Still others, representing approximately sixty per cent of the curriculum, remain as yet untouched. The completion of the work will require both time and labor but substantial progress has already been made.

In the field of court practice, Professor Harold R. Medina published a collection of cases on pleading and practice which is the basis of an advanced course on court procedure designed to cover the subject matter formerly included in courses such as code pleading, trial practice, and appellate practice. The course is intended to supplement the first-year course on procedure designed by Professor Magill several years ago and discussed in my report for 1928. Professor Medina's book is devoted largely to developing the practice in New York, with a limited amount of materials from other jurisdictions for comparative purposes, as his long experience in teaching this subject has convinced him that a thorough examination of the procedural law in a single jurisdiction is necessary if the student is to appreciate the significance of the various procedural devices and their relation to each other. This course is in the nature of an experiment and will be modified in the light of actual experience during the next few years.

During the year, Professor Roswell Magill published a collection of cases on taxation to supplement the book which

he published jointly with Professor Joseph H. Beale, of Harvard Law School, in 1926.

As stated in the section of this report dealing with research, Mr. A. Arthur Schiller, in coöperation with Professor Hessel E. Yntema of the Johns Hopkins University, has for several years been engaged in collecting materials in Roman law, adequate to serve as a basis of instruction along the lines of the case method. During the year a considerable part of these materials were printed and will be used in 1929–1930 in the seminar on Roman law.

In addition to the foregoing books published during the year, a considerable quantity of mimeographed materials were prepared for use in connection with various courses. Among these are Professor Underhill Moore's materials on commercial bank credit; Professor Patterson's materials on conditions in contracts; Professor Hanna's materials on security and creditors' rights; and Professor Handler's materials on advertising and trade-marks.

No phase of law has been more neglected by the law schools of this country than that of legislation. The Faculty has for some time recognized this defect in legal education, and for a number of years opportunities for work in this field have been provided for a limited number of students by the Legislative Drafting Research Fund. Also a special course on statutes has been offered to advanced students. During the year under review it was decided to include as one of the required courses of the first year a course on legislation. The course was given with marked effect by Professor Thomas I. Parkinson and will be continued. The purpose of the course is to acquaint the student with legislative development of the law; the relation between common law and statute law; the fact basis of legislation and judicial review; types of statutes; legislative sanctions and provisions for administration. The student is also given some training in the technique of statutory interpretation. Materials for this course are now in course of preparation and should be printed during 1930. Professors Dowling and Chamberlain will cooperate with Professor Parkinson in the preparation of these materials.

A major part of my report for 1927-1928 was devoted to the student body, particularly those problems resulting from the large increase in the number of students. Selection of I pointed out that the physical equipment was Students inadequate to accommodate the present numbers and that a further increase in the size of the School would necessitate the procuring of larger quarters, additional library facilities, and more teachers. I indicated the tendency, resulting from large numbers, toward an overstandardization of education to the great neglect of the individual student. I called attention to the fact that for a number of years approximately one third of each entering class had been excluded from the School at the end of the first year because of deficient scholarship and approximately one-half had failed to graduate. I also stated the results of the study and experimentation by the Faculty, beginning in 1921, for the purpose of devising ways and means of preventing the admission of students who were not likely to do satisfactory work. It was because of these and other facts set forth in my report that the Faculty decided to limit admission to a selected group who give promise of complying with the standards of the School.

The class entering in September, 1928, was the first of the selected classes. While our experience in selecting students is, as yet, too limited to justify any final conclusions, the following comparisons are worthy of note. In 1927-1928 there were 386 students in the entering class. This was the last of the unselected classes. At the end of their first year, 146 of these men, representing 37.8 per cent of the class, had failed to maintain the average grade required for continuance in the School. In 1928-1929 there were 406 applicants for admission to the first-year class. Of this number 344 took the entrance examination; 72 were rejected, 272 were accepted, and 235 actually registered. At the end of the year 50 of the 235 registered students, representing 21.2 per cent of the class, had failed to maintain the required average. Thus the number of failures in the first year was reduced from 146 in 1927-1928 to 50 in 1928-1929. While the scholastic casualties in the selected class of 1928–1929 were proportionally 44 per cent less than the scholastic casualties in the unselected class of 1927–1928, the percentage of casualties is still too high. This is probably due to the fact that the selection committee was inclined to resolve all doubts in favor of the student with the result that at least twenty-five applicants were admitted who should have been rejected. A careful analysis of the cases is being made for the purpose of improving the methods of selection and it is expected that in 1929–1930 the percentage of casualties will be further reduced. In this connection I desire to express appreciation of the valuable aid and coöperation of Professor Adam Leroy Jones, Director of University Admissions, in the administration of the selective process.

Whatever its defects, the selective process prevented at least 100 students from entering the School in 1928–1929 who would have failed to comply with the standards of the School. Moreover, the elimination of these students materially raised the average of ability of the entering class with a corresponding improvement in the quality of student work. A smaller but better school is the net result.

The registration during the year was as follows:

Graduate students	I 2
Third year—Class of 1929	77
Second year—Class of 1930	18
First year—Class of 1931	35
Non-matriculated students	6
Total	48
Summer Session, 1928	76
δ	24
Less duplications	80
Net Total	44

During the year the degree of LL.B. was awarded to 163 candidates. The degree of LL.M. was awarded to one candidate.

I am very glad to be able to report a wider geographical distribution of students in the entering class in 1928-1929 than in recent years. In 1927-1928, 62.3 per cent of the students registered in the School resided in Greater New York and 37.7 per cent came from other localities. In 1928–1929, 53.2 per cent of the members of the entering class resided in Greater New York and 46.8 per cent came from other localities. The increase in the proportion of students coming from more distant localities is due, in part, to systematic efforts which were made during the spring of 1928 to inform college students throughout the country of the developments which are taking place in the School and the unusual opportunities thereby afforded for a professional education of unique character. The substantial increase in the appropriations for scholarships made in April, 1928, and the further increase made in April, 1929, has aided materially in attracting to the School worthy students of limited means. As a result of the additional scholarships twelve excellent men from various sections of the country were brought to the School during the year just ended and I am pleased to report that twenty more will enter in September who, without this aid, would have been compelled to go elsewhere for their legal education. I strongly recommend the continuance of this policy if the maintenance of a student body, national in character, is desired. The heavy cost to a student from New England, the South, or the West, who comes to New York for his professional education, will deter men of moderate means from coming to Columbia unless the differential in cost over that incident to attending a local institution is removed by scholarship aid.

In my report for 1928 I called attention to the importance of providing more adequate opportunities than those afforded by the formal courses for independent and original work by students of exceptional ability. I pointed out that the formal classroom discussions with large groups of students of varying degrees of capacity, while perhaps adequate to meet the needs of the average student, operate to retard the growth of the more capable men. With

the view to improving the situation, the seventeen graduate seminars offered during 1928–1929 were opened to a limited number of second and third year students who, by their previous work in the Law School, had demonstrated their exceptional ability. The results of this innovation, while limited to one year's experience, are sufficiently promising to justify its continuance. Twenty seminars will be offered during 1929–1930. In addition to the seminars, opportunities are afforded a limited number of undergraduate students of exceptional ability, as well as graduate students, to assist members of the Faculty with the various research projects which are carried on from year to year, thus enabling the student to gain the experience to be derived from participating in an intensive and extensive study of a particular subject or a synthesis involving a number of subjects.

The School has been fortunate in recent years in attracting to its teaching and research staffs a group of able men who

are well qualified to go forward with the program outlined in my report for 1928 and further discussed in this report. The score of men who constitute the nucleus of this

Appointments and Resignations

group have for a number of years been thinking and planning and experimenting with the view to improving legal education. Today their work is one of the chief topics of interest and discussion throughout the law school world. Already several of the leading schools have undertaken developments along similar lines and others are manifesting a growing interest. As a result there has been an increasing demand from other institutions for men who have been associated with the Columbia projects. It is not without significance that when the Institute of Law was established by the Johns Hopkins University each of the four men selected to plan and start the institute had at one time been a member of the Columbia Faculty. Also with the recent establishment of the Institute of Human Relations by Yale University, a member of the Columbia Faculty was among the first chosen to aid in organizing and advancing its work. Within the last few years, at least nine members of our Faculty have been sought by various institutions and several of our recent graduates have been appointed to important positions in other law schools. This is the best evidence of the opinion of other universities concerning the personnel of our staff and the value of what they are doing. We have lost some men and have acquired others. To the extent that the men who have left have aided in building up the faculties of other institutions, the cause of legal education has been served, but it is highly desirable, in the interests of legal education as well as in the interests of the School, that those members of the present Faculty who are familiar with the history of the various changes which have occurred and who are the key men in the developments which are now taking place should be held together during the next decade. Moreover, it is equally important that a group of junior appointees should be built up who, as occasion requires, will be prepared to assume the responsibility of the work. In furtherance of this policy a number of men were added to the teaching and research staffs during 1927-1928 and the following additions were made during the year just ended.

Elliott E. Cheatham, Professor of Law—Professor Cheatham received the A.B. degree in 1907 from the University of Georgia and the degree of LL.B. from Harvard University in 1911. Professor Cheatham engaged in the practice of law in Atlanta, Georgia, until 1914 when he was appointed an attorney in the Department of Justice in Washington. In 1917 he returned to Atlanta where he was Assistant United States Attorney and also for a time Assistant Regional Counsel of the United States Railroad Administration. He began his teaching career as Professor of Law in the Lamar School of Law, Emory University. From 1924 to 1926 he was Professor of Law in the University of Illinois and from 1926 to 1929 he was Professor of Law in Cornell University. He is a member of the bars of Georgia and New York.

Robert P. Hamilton, Associate Professor of Law—Professor Hamilton received the A.B. degree from the University of Virginia in 1917. After spending two years in the Virginia Law School, he was awarded a Rhodes Scholarship and in

1922 received the degree of B.A. in Law, and in 1923 the B.C.L. degree from Oxford University. In 1924 he was awarded the degree of LL.B. by Columbia University. From 1924 until 1929 Professor Hamilton practiced law in New York City with the firm of Root, Clark, Buckner, Howland and Ballantine.

Leon A. Tulin, Associate Professor of Law—Professor Tulin received the B.A. degree from Yale College in 1922 and the LL.B. degree from Yale in 1925. He was admitted to the Connecticut Bar in 1925 and to the New York Bar in 1926. During 1925 and 1926 Professor Tulin practiced law in New York City with the firm of Mayer, Warfield and Watson. From 1926 to 1929 he was Assistant Professor of Law in Yale Law School.

Milton Handler, Assistant Professor of Law—Professor Handler received the A.B. degree from Columbia College in 1924 and the LL.B. degree from Columbia University in 1926. He was admitted to the New York Bar in 1927. During the year 1926–1927 Professor Handler served as the secretary to Mr. Justice Harlan F. Stone. Professor Handler returned to the Columbia Law School in the fall of 1927 as an Assistant in Law. During the year 1928–1929 he was a Lecturer in Law.

Evan Haynes, Visiting Lecturer in Law—Professor Haynes, Visiting Lecturer from the University of California, received the degree of A.B. from the University of California in 1922, and the J.D. degree from the same institution in 1924. He was admitted to the California Bar in 1924 and practiced law in San Francisco with Mr. G. W. McEnerney during the years 1925 to 1927. He was appointed Assistant Professor of Law in the University of California in 1927.

Francis Deák, Lecturer in Law—Mr. Deák received the degree of J.D. from the University of Budapest in 1925 and the S.J.D. from Harvard University in 1927. Mr. Deák was appointed Research Assistant to the Hon. John Bassett Moore in 1927. In February, 1929, he was appointed Lecturer in International Law and Comparative Law in Columbia University. Mr. Deák was the legal expert of the Hungarian Government in its case against Rumania before the Council

of the League of Nations in March, 1928. He is the attaché to the Hungarian delegation to the Assembly of the League of Nations.

John L. Grant, Associate in Law—Mr. Grant was graduated from the United States Military Academy. He received the degree of LL.B. from Columbia University in 1927. Mr. Grant was admitted to practice in New York in the same year. He practiced law in New York City with the firm of Hornblower, Miller and Garrison until the autumn of 1927 when he returned to Columbia as the Assistant to the Dean and Secretary of the Faculty of Law.

Harold F. McGuire, Assistant in Law—Mr. McGuire received the degree of A.B. from Columbia College in 1927 and the LL.B. degree from Columbia University in 1929. During the latter part of his law school work Mr. McGuire assisted Professor Michael in his research in the law of evidence.

In addition to the staff appointments enumerated above, Messrs. Charles Looker and Ralph T. Heymsfeld of the Class of 1929 will assist Professors Powell and Llewellyn with their research during 1929–1930.

I regret to report the resignation of Professor Herman Oliphant, effective June 30, 1929, and that of Professor Underhill Moore, to take effect at the end of his sabbatical leave in January, 1930. Both Professors Moore and Oliphant have been members of the Faculty of Law for a number of years during which time they have rendered valuable services to the School. Their leaving will be a source of keen regret to many of the younger alumni who have graduated within the last decade. Professor Moore was appointed to the Faculty in 1916 and Professor Oliphant was appointed to the Faculty in 1921.

Mr. Pendleton Howard, who was appointed Lecturer in Law during 1928–1929, has been made Professor of Law in the University of Idaho. Mr. Theodore S. Hope, Jr., of the Class of 1928, who was appointed Assistant in Law during 1928–1929, has been placed in charge of important research work conducted by the Institute of Law of the Johns Hopkins University.

During the year, Doctor Alfredo Colmo, President of the Civil Court of Appeals of Buenos Aires, Professor Francis H. Bohlen, of the University of Pennsylvania Law School, Professor Thomas R. Powell, of Harvard University Law School, Professor Douglas B. Maggs of the University of Southern California Law School, and Professor Robert E. Mathews of Ohio State University College of Law, were Visiting Professors. For a number of years, the Faculty has annually invited to the School as visiting professors one or more scholars from other institutions. In this way the Faculty has obtained useful suggestions and criticisms of its work. Also the visiting professors have returned to their own institutions with a better understanding of what Columbia is doing.

During the year, 5,366 volumes were added to the law library, bringing the total collection to 147,634 volumes. Apart from the usual additions of materials Library in Anglo-American law, particular attention has been devoted to building up the materials on the laws of other countries. The library now contains more than 27,000 foreign law books. Already, the collections of the legal literature of France, Germany, Austria, Italy, Spain, and the Netherlands surpass the collections found in most of the libraries of those countries. During the year especial attention was directed to the materials from Russia, Poland, Czechoslovakia, Rumania and the Netherlands. Columbia now has a complete set of the laws and decisions of the Imperial, Provisional and present Soviet governments, being one of the few libraries in America where these books may be found.

I take pleasure in reporting gifts of portraits of Professors Ralph W. Gifford and Underhill Moore, which were presented to the School by groups of their pupils.

During the Winter Session of 1928–1929 Professor Llewellyn was Carnegie Professor at the University of Leipzig where he delivered a series of lectures in German on the introduction to case law. These lectures made a profound impression upon a number of German jurists. They were cited by Professor Hedemann of the University of Jena in his *Reichsgericht und Wirtschaftsrecht*

and were not only cited five times by Professor Gerland of the University of Jena in his *Probleme Des Englischen Rechtslebens* but apparently influenced a reversal of his prior position that case law had no place in German jurisprudence. While Professor Llewellyn was in Germany he also delivered lectures on legal education in Breslau, Freiburg and Heidelberg. Professor Llewellyn's lectures at Heidelberg prompted a change in the teaching methods of Professor Mitteis of Heidelberg who writes that the students welcome his present semi-inductive methods.

During the academic year 1928–1929 Professor Dowling, while on sabbatical leave, was Director of the British Division of the American University Union with headquarters in London. During the year he visited many of the universities and colleges in England, Scotland, and Ireland and participated as representative of American universities in some of their functions. He sat on the Court of Governors of the University College of the Southwest; was called as witness with the educational group to attend the enthronement of the Archbishop of Canterbury; served on the educational and other committees of the English-Speaking Union; delivered several addresses on educational and governmental topics; and on the inauguration of President Hoover, wrote the leading article for the London *Times* concerning the constitutional powers of the President.

During the Spring Session of 1928–1929 Professor Patterson was on sabbatical leave. While in Europe he made contacts with many distinguished scholars and published in Berlin in the Zeitschrift für die gesamte Versicherüngs-Wissenschaft an article on the transfer of insured property under German and American law.

In conclusion, I wish to acknowledge here the fine service of my colleagues who, during my illness of last winter, assumed and effectively discharged many of the responsibilities of the Dean.

Respectfully submitted,

Young B. Smith,

Dean

SCHOOL OF MEDICINE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report of the work at the College of Physicians and Surgeons for the year ending June 30, 1929:

ENROLLMENT

Four hundred and twenty students registered for the courses leading to the M.D. degree. There were 110 first-year students, 103 second-year, 104 third-year, and 103 fourth-year, with four non-candidates. There were 52 registrants in the various departments of the School of Medicine under the Faculties of Pure Science, of whom 31 were working for the Master's degree, 20, for that of Doctor of Philosophy, and one special student. In the courses for graduates in Medicine there were 96 students.

CHANGES IN STAFF

NEW APPOINTMENTS

Earl B. McKinley	Professor of Bacteriology and Director
	of the School of Tropical Medicine
Edward S. Godfrey, Jr	Clinical Professor of Epidemiology
J. Burns Amberson, Jr	Assistant Professor of Clinical Medicine
Harold W. Smith	Assistant Professor of Orthopedic Surgery
Harry O. Veach	Assistant Professor of Physiology

PROMOTIONS

1928-1929

Charles Hendee Smith	Professor of Clinical Diseases of Children
Robert Lewis	Clinical Professor of Oto-Laryngology
Richard T. Atkins	Assistant Professor of Oto-Laryngology
Roderick V Grace	Assistant Professor of Surgery

John D. Kernan Assistant Professor of Oto-Laryngology T. Laurance Saunders . . . Assistant Professor of Oto-Laryngology Alan DeF. Smith Assistant Professor of Orthopedic Surgery

RESIGNATIONS

1928-1929

William C. Clarke Professor of Experimental Surgery

Robert A. Lambert Professor of Pathology and Director,

School of Tropical Medicine

Royal Storrs Haynes Clinical Professor of Diseases of Children

Mortimer W. Raynor Clinical Professor of Psychiatry
Isaac J. Furman Associate Professor of Psychiatry
Ransom S. Hooker Associate Professor of Clinical Surgery
Martha Koehne Assistant Professor of Medicine and Di-

rector of Nutrition, Presbyterian

Hospital

Dr. Robert A. Lambert gave up his position as Director of the School of Tropical Medicine in September, 1928. The present successful condition of the School is due very largely to his efforts as its first Director. The University is to be sincerely congratulated because of the constructive work he has accomplished during his tenure of office. He not only built up a strong and loyal personnel but by virtue of his quiet, sympathetic tact and unusual scientific ability, has won the respect and affection of the medical profession of Porto Rico and the members of the insular government. During his stay, sixty-one scientific papers were published from the School whose quality placed the institution on a high scientific level in the minds of the world at large. In addition to the staff sent down from the States, Dr. Lambert collected from among the best physicians of the island, a loyal, intelligent and coöperative group, almost all of whom have continued under the present administration.

After more than twenty-five years of devoted service, Professor William C. Clarke has resigned. Dr. Clarke has held a unique position and has had a strong influence on both the student body and the staff of the School. For many years he has been in charge of the laboratories of the Surgical Department. Coming in contact with the students at the thresh-

old of their surgical experience, he was able to impress them with the spirit of scientific inquiry and original investigation to a high degree. Although surgical literature contains few publications from him directly, he has made great contributions by the stimulus he has applied to others. There are but few members of the Surgical Department who have not strongly felt his influence. He will be greatly missed by both students and staff, but the College of Physicians and Surgeons has been greatly strengthened by his loyal and devoted service.

The First Surgical Division at Bellevue Hospital has always been one of the great teaching assets of the College. The unusual and valuable material there has been greatly appreciated by the student body. This has been due largely to the efforts of the staff who have not only been skillful surgeons, but interested and stimulating teachers. The outstanding figure for many years has been Professor Ransom S. Hooker. To our great regret Professor Hooker has found it necessary to resign as Director of this service and as a member of the teaching staff. His devoted and successful efforts are deeply appreciated and he will be greatly missed.

During the year, two members of the Department of Surgery have died whose personality and ability made them of great value to the School. Early in July, 1928, Dr. Herman L. von Lackum was killed in an airplane accident during service as Flight Surgeon of the National Guard. He was one of the most promising men in the younger group of orthopedic surgeons, and was greatly respected and admired by both students and staff.

Dr. Richard W. Bolling died on April 6, 1929. He was on the staff of St. Luke's and Babies' Hospitals and had made valuable contributions to the problem of pyloric stenosis in children. Quiet and modest in demeanor, careful and wise in judgment, and skillful in his work, he was beloved by his associates. Only recently he had become more widely recognized by his election to the American Surgical Association and the Society of Clinical Surgery.

NEW BUILDINGS

The new quarters for the School of Medicine were completed early in the summer of 1928 so that the various departments were well settled by the opening of the fall session. They have proved to be even more satisfactory and delightful than had been hoped for. The staff is most appreciative of their new opportunities. In spite of what seems greatly increased space, every room is now occupied. Already it has been necessary to think of future expansion. Additional space will soon be needed to expand certain departments and to undertake new work, but there is one great and immediate need which is essential for almost every department. The space for care of experimental animals has proved so inadequate that many plans for research work have had to be given up or deferred. Because of overcrowding, many experiments were ruined by contagious disease among the animals. It is possible by building additional quarters on the top floors to meet the more immediate demand, but the proper solution of the problem will require space in the upper floors of the clinic wing, now only eight stories high, as well as other quarters outside.

HOUSING FACILITIES

For a number of years the great need for proper housing facilities at the new center for students and staff has been emphasized. It is with great satisfaction and deep gratitude that the latest generous gift to the University by Mr. Edward S. Harkness is acknowledged. This has made possible the purchase of additional land and the erection of a suitable dormitory for men students of the School of Medicine and a few of the unmarried members of the staff. In addition to living quarters this will provide dining facilities for all the student body as well as a lounge, and opportunities for exercise. The land obtained is on Haven Avenue, just north of the Neurological Institute and has an unobstructed view of the Hudson and Palisades. By including quarters for some of the younger staff members, with living rooms large enough to accommodate a dozen guests, it is hoped that the intimate association between student and teacher, so essential a part of our educational policy, can be still farther developed. It is hoped that the building will be completed within the coming academic year.

RETROSPECT

The past year completes a stage of development in the history of the College of Physicians and Surgeons. It has been a period of reorganization and building. During this time there have been twelve new department heads appointed; the curriculum has been very largely changed; the academic type of organization in the clinical departments developed to a considerable degree; plans for the new buildings carefully studied in all details and then built and occupied on new ground given to the Uni-

versity; the budget for the educational and research work in the School increased by more than \$600,000; close affiliations formed with the Presbyterian, Neurological, and Babies' Hospitals, followed by the erection of new hospitals in intimate contact with the School on the same plot of ground; the building by the state authorities of a new psychiatric hospital and research institute on land adjacent to the other units, and lastly, the gift of money to provide additional land and a dormitory for the students of medicine.

In spite of all the details of reorganization and building, the teaching has continued to improve and a very considerable amount of research has been carried on steadily. Now that the various departments have had a year to settle down in their new quarters, it is hoped that the staff will be better able to concentrate on their normal duties.

A comparative list of the full professors in 1919 and 1929 follows:

Department	1919	1929
Anatomy	. G. S. Huntington	S. R. Detwiler P. E. Smith
Bacteriology	. H. Zinsser	F. P. Gay
Biochemistry	. W. J. Gies	H. T. Clarke
		W. J. Gies
De Lamar Institute		
of Public Health		H. Emerson
Dermatology	. J. A. Fordyce	J. G. Hopkins
Diseases of Children .	. L. E. Holt	H. B. Wilcox
Neurology	. F. Tilney	F. Tilney
	L. Casamajor	L. Casamajor
Obstetrics	. W. E. Studdiford	B. P. Watson
Ophthalmology	. A. Knapp	J. M. Wheeler
Oto-Laryngology	. C. G. Coakley	C. G. Coakley
Pathology	. J. W. Jobling	J. W. Jobling
		A. M. Pappenheimer
	. C. C. Lieb	
Physiology	. F. C. Lee	H. B. Williams
		F. C. Lee
Practice of Medicine .	. W. T. Longcope	W. W. Palmer
		A. R. Dochez
Surgery		
		H. Auchincloss
		F. B. St. John
	. R. A. Hibbs	
Urology	. J. B. Squier	J. B. Squier

DEPARTMENTAL REPORTS

DEPARTMENT OF ANATOMY

The Department of Anatomy has continued its reorganizing program during the past year with a view of establishing the conditions necessary for more effective instruction and scientific investigations.

The staff has been composed of eleven full members who have been devoting their entire time to teaching and to scientific research. The teaching duties of this group have been greatly aided by thirteen part-time instructors who have been otherwise engaged in clinical work or in practice.

Promotions have been made as follows: Dr. B. B. Gallaudet from Assistant Professor to Associate Professor; Dr. Earl T. Engle from Assistant Professor to Associate Professor; Dr. A. E. Severinghaus from Instructor to Associate.

New appointments include Dr. Charles M. Goss, graduate of the Yale School of Medicine and Instructor of Anatomy at the same institution, as Instructor; and Miss Ethelbert McKennon and Miss Lillian Hall as Research Assistants.

Courses offered in the Department of Anatomy with the attendance are listed as follows:

	Students	
Courses	Medical	Graduate
Gross Anatomy	110	6
Histology	110	6
Embryology	70	
History of Medicine	65	
Topographic and Applied Anatomy	40	
Endocrinology	7	2
Causal Morphology	4	I

Professor P. E. Smith has been in charge of the course in histology, and Professor Dudley J. Morton has been in charge of gross anatomy. Both of these major undergraduate courses have been enthusiastically received by the students.

With the installment in new quarters, the course in gross anatomy has been reorganized under a new personnel. The shortening of the course from a year and a half to one year introduced an important pedagogic problem as how to avoid a corresponding lowering of the standards of the anatomical requirements which had previously been established. Attempts have been made to meet the condition by incorporating certain distinctive features in the course of instruction, which seek to combine the effects of stimulating the interest of the student, and of employing his energy and time to greatest practical advantage. These features include: (a) patterning the course directly towards its ultimate clinical

purpose; (b) graded progress to allow the student to acquire an early grasp of the subject; (c) clinical contacts and talks by members of the clinical staff; (d) emphasis on physiological or "live" anatomy. The results of the first year have been highly interesting and encouraging, particularly as regards heightened interest of the students towards gross anatomy. Recent changes made in the curriculum, and the opportunity for progressive improvement in the organization of the course during the coming year, justify the prediction of a much more favorable and complete statement in the next annual report.

Research

Causal Morphology

Five members of the Department, three advanced medical students and one graduate student have been actively engaged with research problems dealing primarily with the dynamics of development of the central and peripheral nervous system of vertebrates, although other problems concerned with developmental physiology have been investigated.

Dr. Detwiler has continued his studies which deal primarily with the forces controlling nerve cell development in the brain and spinal cord, and the growth of nerves. These problems are studied by the method of grafting embryonic tissues from one animal to another within the same species or between embryos of different species. Experiments involving heteroplastic transplantation of the medulla and of the spinal cord have been carried out with stimulating results which bear upon the development of nervous architecture in the central nervous system. Experiments in limb grafting have been carried out in connection with a study of the spinal mechanism which coördinates limb reflexes. Limb grafting is also being used as a method of studying problems in organic symmetry and in limb doubling. Experiments which deal with the rôle of developing and functionating muscle upon the growth of spinal nerves are also being made. Other problems are under way which bear upon the physiology of nerve impulses.

Dr. Copenhaver is continuing experiments upon embryonic heart grafting as a means of studying problems in the developmental physiology of the heart and its nerve supply. He is also grafting developing livers between animals of two different species in connection with problems dealing with growth rates.

Dr. Severinghaus, by the same method of embryonic tissue grafting, is studying certain phases of cellular proliferation in developing spinal cords. He is also carrying out certain experiments in gill grafting with reference to red blood cell origin.

Dr. Carpenter is studying the developmental responses of sensory ganglion cells to increased peripheral loading, the development of the mechanism of crossed extension reflexes, and the rôle of proprioceptive nerve fibers in the coördinated activities of supernumerary limbs. These problems are also approached through the method of embryonic tissue grafting.

Dr. Rogers is grafting embryonic spinal cords in connection with studies upon the hyperinnervation of developing skeletal muscle. Outside of this field he is studying also the development of the palatine tonsil of man during embryonic, fetal, and infantile life. Investigations on the microscopic structure of skeletal muscle under ordinary and polarized light are also being made.

Some of the additional expenses involved in providing the necessary facilities and materials for the conduction of the research work in causal morphology this year have been met by a grant of one thousand dollars from President Butler. The Department wishes to express its gratitude to President Butler for his generous help.

Physical Anthropology

Work in this field has been temporarily suspended because of the more urgent need of organizing the class work in gross anatomy. Nevertheless, an important preparatory step has been made by the Anatomical Department toward future work in this field in the inception of an African Anatomical Expedition in order to procure specimens of gorillas, chimpanzees, and other African primates.

With the endorsement of President Butler and Dean Darrach, an invitation was extended to the Department of Comparative Anatomy of the American Museum of Natural History to unite with the Department in the enterprise. The expense of the expedition was raised by a special donation given to the University for that purpose.

A Committee in charge of the expedition and its subsequent research activities, consists of the following members:—

President Nicholas Murray Butler Chairman, ex officio

Advisory Members

Dean William Darrach Mr. Frank D. Fackenthal President Henry Fairfield Osborn Dr. George H. Sherwood

Professor Dudley J. Morton, Chairman

Professor Samuel R. Detwiler

Professor P. E. Smith Professor Earl T. Engle

Professor William K. Gregory

Professor J. Howard McGregor

Mr. Harry C. Raven, leader of the expedition

Professor Engle is our representative on the expedition, the other members of its personnel being Mr. Raven (leader), Professor Gregory, and Professor McGregor.

Departure from New York was made May 29, 1929, for an eight-months' trip, during which six months will be spent in the interior of Africa crossing it from the east to the west coast.

Endocrinology

Professor Smith has given over a large amount of time during the past year to moving in and establishing the new quarters, and in developing an adequate animal colony. It has been Professor Smith's ideal that those interested in the endocrine glands and reproductive system combine their efforts for coöperative research. The coöperation has been most whole-hearted and gratifying. A group composed of Professor Smith and Professor Engle from this department and Professor Foster of the Department of Biochemistry has been actively engaged in attempting to isolate the gonad-stimulating hormone of the anterior pituitary. About 500 rats and mice have been treated and studied after injection of extracts prepared by Dr. Foster. Although the work is advancing slowly, definite progress has been made.

In collaboration with Dr. Engle, Dr. Smith has been studying the factors responsible for the rhythm of the sexual cycle. Evidence has been obtained indicating that a periodic secretion of the pituitary is responsible for this rhythm.

With the coöperation of Mr. Dortzbach, Dr. Smith is investigating the secretory activity of the anterior pituitary in the fetus. It has been found that the hormone stimulating general body growth, and the one stimulating the development of the reproductive system appear in the pituitary at quite widely separated periods of development. Correlated with this is the appearance of specific cell types—thus giving an indication of the nature of the secretion formed by these types.

Miss Kauf, under Dr. Smith's direction, is studying the alleged suppression of compensatory thyroid hypertrophy by pituitary feeding. Mr. Robbins, also under Dr. Smith's direction, is making a comparative structural study of the pituitary. Dr. Robb, who came to Professor Smith as a National Research Fellow from Harvard University, has been obliged to suspend temporarily a study begun here upon the interrelation of constitution and pituitary activity by reason of serious illness.

Professors Smith and Engle acknowledge with gratitude the receipt of a grant of \$4,800 from the Committee for Sex Research of the National Research Council.

Dr. Zwemer with the aid of four advanced medical students is studying various phases of adrenal insufficiency, endeavoring to correlate experimental results with the known clinical findings in Addison's disease and allied adrenal disfunctions. These studies involve blood sugar changes in relation to the adrenal cortex, the effects of daily transplants of fresh adrenals, the effect of thyroid administration on partially epinephrectomised cats, and changes in leucocyte differential count. Dr. Zwemer is

also collaborating with Dr. H. Davis of the Harvard Medical School in determining the neuromuscular changes in adrenal insufficiency, and with Dr. H. E. McMahon of the Boston City Hospital on pathological changes following adrenal removal.

Dr. Engle has spent a great deal of his time and energy this year in establishing an animal colony and organizing the physical details necessary for an effective research program. This program, a continuation of several years' investigation, deals primarily with the mammalian reproductive system, with special emphasis on its endocrine relationships.

With Professor Smith as co-worker, two projects have been completed, one dealing with the replacement of follicular cysts by the corpus luteum, with a note on the dual origin of the corpus luteum. The second deals with the phenomenon of cyclic liberation of the gonad-stimulating factor of the anterior lobe in the guinea pig.

A series of experiments which attempt to analyze the hormonal factors contained in the urine of pregnant women, adult men and non-pregnant women have been completed and are ready for the press.

With the aid of Mr. Dortzbach, Dr. Engle has carried out extensive experiments dealing with ovarian, placental, and fetal factors which are related to the secretion of the mammary gland. With the help of Miss Baldwin he has been studying the uterine movements during pregnancy, and with Miss Hall as co-worker, a problem dealing with the presence of the gonad-stimulating factor of the anterior lobe in amphibians and reptiles.

The animal quarters have proven adequate for problems undertaken thus far. It has become highly important, however, to extend investigations to the monkey, and in order to carry out such studies housing facilities for primates become imperative.

Acknowledgment is made of the valuable services rendered by Miss McKennon and Miss Hall in their capacity as Research Assistants.

Bibliography

Copenhaver, W. L.: "Transplantation of Organs Between Widely Different Species of Amphibian Embryos." Abstract, *Anatomical Record*, 1928, Vol. 38, No. 1, p. 8.

Detwiler, S. R.: "Experiments on the Reversal of the Anterior End of the Spinal Cord in Amblystoma Embryos," *Journal of Comparative* Neurology, 1928, Vol. 45, No. 1, pp. 191-209.

"Further Experiments Upon Alteration of the Direction of Growth in Amphibian Spinal Nerves," *Journal of Experimental Zoölogy*, 1928, Vol. 51, No. 1, pp. 1–35.

Detwiler, S. R. and Adelmann, H. B.: "Morgan on Entwicklungsmechanik," The Quarterly Review of Biology, 1928, Vol. 3, No. 3, pp. 419-26.

Engle, E. T.: "The Rôle of the Anterior Pituitary in Compensatory Ovarian Hypertrophy," *Anatomical Record*, Vol. 37, January, 1928.

- Engle, E. T. and Mermod, C.: "The Effect of Daily Transplantation of the Anterior Lobe on the Course of Pregnancy in the Rat and Mouse," American Journal of Physiology, 1928, Vol. 85.
 - "Hypertrophy of Mammary Gland in Adult Male Rats with Experimental Ovario-testis," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 25.
- Morton, D. J.: "The Influence of Habit in the Evolution of Man and the Great Apes." Discussion. Bulletin, New York Academy of Medicine, 1928, Vol. 4, pp. 242-47.
 - "Were the Ancestors of Man Primitive Brachiators?" Discussion. Eugenical News, 1928, Vol. 13, No. 4, pp. 58-59.
 - "Hypermobility of the First Metatarsal Bone: The Interlinking Factor Between Metatarsalgia and Longitudinal Arch Strains," *Journal of Bone and Joint Surgery*, 1928, Vol. 10, No. 2, pp. 187–96.
- Severinghaus, Aura: "Sex Studies on Schistosoma Japonicum," Quarterly Journal of Microscopical Science, Vol. 71, Pt. IV, April, 1928.
- Zwemer, R. L. and Newton, H. F.: "Studies on the Conditions of Activities in Endocrine Glands. XXIV Asphyxial Stimulation of the Denervated Adrenal Gland," American Journal of Physiology, 1928, Vol. 85, pp. 507-11.
- Zwemer, R. L., Newton, H. F. and Lyons, C.: "Leucocyte Changes after Adrenal Removal," American Journal of Physiology, 1928, Vol. 86, pp. 545-51.

DEPARTMENT OF BACTERIOLOGY

The Department is now fully and happily installed in its new quarters, which, with slight additions in equipment and structural changes already provided for, are all that could be desired. The space is already comfortably filled.

The return of Dr. E. B. McKinley as Professor of Bacteriology to the Department is welcomed although he is in residence in Porto Rico as Director of the School of Tropical Medicine. Dr. McKinley's re-identification with the Department, although spiritual rather than physical, is a cause for congratulation.

The teaching staff has been enlarged by one Assistant provided for the instruction of dental students, owing to their increase in numbers.

The main increase in personnel during the past year has been in the technical and secretarial staff, due largely to the increase in diagnostic service rendered by the Department to the Medical Center. The technical assistants have been increased from seven to nine and a much-needed secretary added. Most important is the appointment of a resident bacteriologist, Dr. Hazen, who is on call for emergencies and takes care of the working out of special problems.

The bacteriological examinations total 1,130 a month, as compared with 600 in the old Presbyterian Hospital. The Wassermann examinations, which steadily increase, average 1,950 a month, as compared with a previous total of 1,600 in the two former laboratories at the Presbyterian Hospital and the Vanderbilt Clinic.

The total hours of instruction in bacteriology to medical students have been reduced somewhat and the period of instruction has been concentrated in a trimester of ten weeks. At the same time the course endeavors to present a more comprehensive outline of the entire subject of disease causation as exemplified this year by adding the essentials of protozoölogy and virus diseases in lecture and demonstraton. The method of instruction designedly is never static.

A manual of laboratory exercises, first prepared five years ago, is now in preparation of a third edition, owing to frequent improvements made in it, and also to a very considerable demand for it from other universities.

The concentrated curriculum in force this past year leaves a certain amount of free time to medical students which may be spent in research. We have been interested to note that several of these students have expressed interest in problems and have actually begun certain investigations.

We have had this year, as non-medical students under the Faculty of Pure Science, six candidates for the M.A. degree; and seven for the Ph.D. degree, of which latter group two have fulfilled all requirements.

Research

Investigation forms an integral part of the activity of all members of the teaching staff and occupies the entire time of the more advanced graduate students. In addition there are seven, for the most part full-time trained investigators, who are working without remuneration or are supported by outside research funds. The following agencies should be warmly thanked for their coöperation and material aid both in personnel and supplies: the Milbank International Fund for the Study of Poliomyelitis; the Willis D. Wood Encephalitis Fund; the Friedman Fund for the Study of Tuberculosis; the Boyce Thompson Institute for Plant Diseases; and the Chemical Foundation Fund.

Following are the more important problems that have been and are under investigation in this department: a comparative study of several neurotropic and dermotropic viruses—rabies, vaccinia, herpes, and poliomyelitis, particularly with an attempt to understand the nature of active and passive immunity against them (Gay, Hoyt, Holden, Thompson, also herpes independently by McKinley); specific serum reactions with the virus of mosaic disease in tobacco and other plants (Beale); the importance of the mononuclear series of cells in active and passive immunity against several bacteria (Gay and Clark); the mechanism of anaphylaxis, particularly as affected by a deprivation diet (Seegal and Khorazo); the effect of diet and suprarenalectomy on antibody formation (Gay, Seegal); the

toxicity of homologous tissue extract on intravenous inoculation (Gay and Hoyt); the action of disinfectants on dried though living bacteria (Gay and Atkins); reinfection in tuberculosis; suprarenalectomy in experimental tuberculosis (Steinbach); the Ramon titration test with diphtheria antitoxin (Hazen); granulation tissue in relation to infection by anaërobes (Humphries and Hazen); induced variations in streptococcus (McVickar and Ingalls); the relation of B. acidophilus to dental caries (Linton and Roseberry); trypanosome and bartonella infections (Linton); immunochemical analysis of antigens; physiology of bacteria with particular reference to oxidation-reduction processes (Coulter and Stone).

Bibliography

- Coulter, Calvin B.: "Oxidation-Reduction Equilibria in Biological Systems." 2. "Potentials of Aërobic Cultures of B. Typhosus," Journal of Experimental Medicine. (In press.)
- Gay, Frederick P.: "The Fundamental Factors of Immunity." (The DeLamar Lectures.) *Medicine*, 1929, Vol. 8, No. 2.
- Gay, Frederick P. and Clark, A. R.: "A Possible Method of Enhancing the Therapeutic Action of Antibacterial Serums," *Science*. (In press.)
- Gay, Frederick P. and Thompson, R.: "Attempts to Cultivate Vaccine Virus in the Growing Chick Embryo," Proceedings of the Society for Experimental Biology and Medicine. (In press.)
- Heinbecker, P. and Pauli, R.: "Blood Grouping of Baffin Island Eskimos," Journal of Immunology, 1928, Vol. 15, No. 5, p. 407.
- Hopkins, J. G. and Barrie N.: "Antigenic Relationships of Certain Strains of Staphylococcus Aureus as Shown by Agglutinin Absorption," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 25, p. 701.
- Isaacs, M. L.: "Non-specific Desensitization," Archives of Pathology and Laboratory Medicine, 1928, Vol. 5, p. 1028.
- Linton, R. W.: "The Reticulo-endothelial System in Protozoan Infections," Archives of Pathology. (In press.)
- McKinley, Earl B.: "Experimental Herpetic Encephalitis in the Guinea Pig Produced Through the Respiratory Tract," Proceedings of the Society for Experimental Biology and Medicine. (In press.)
 - "Experimental Immunization of Horses with Herpes Virus," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, p. 19.
 - "Experimental Herpetic Encephalitis Produced by Feeding Herpes Virus to Guinea Pigs," *Proceedings of the Society for Experimental Biology and Medicine*, 1929, Vol. 26, p. 21.
 - "Experimental Rinderpest in Goats," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, p. 22.

"Chloroform-treated Tissue-Vaccine in Experimental Herpetic Encephalitis," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, p. 24.

"Leptospira Icterohaemorrhagiae in Wild Rats of the Philippine Islands," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, p. 26.

"Filterable Virus and Rickettsia Diseases." Monograph. Philippine Journal of Science, June, 1929. (In press.)

"Filterable Virus and Rickettsia Diseases in the Tropics," *Porto Rico Review of Public Health and Tropical Medicine*, 1929, Vol. 4, p. 281. (In six parts.)

Purdy, H. A.: "Immunologic Reactions with Tobacco Mosaic Virus," Journal of Experimental Medicine. (In press.)

"Immunologic Reactions with Tobacco Mosaic Virus," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 25, p. 702.

Seegal, B. C. and Khorazo, D.: "Anaphylaxis in the White Rat as Influenced by Diet," Archives of Pathology. (In press.)

Steinbach, M. M.: "Pleural Reactions to Primary and Secondary Infection with Tubercle Bacilli," *Proceedings of the Society for Experimental Biology and Medicine*, 1928, Vol. 25, p. 779.

Thompson, R.: "Attempted Production of Vaccinal Encephalitis in Rabbits with a Testicular Virus," Proceedings of the Society for Experimental Biology and Medicine. (In press.)

DEPARTMENT OF BIOLOGICAL CHEMISTRY

The Department of Biological Chemisty moved to the Medical Center during August and September. It was found that the physical equipment provided by the builders was quite inadequate particularly in the small research rooms destined for the use of the staff. The necessary changes were put in hand at the end of September and completed by the middle of December. The cost of this work, amounting to nearly \$17,000, was defrayed by the Chemical Foundation, Incorporated, through the generosity of Mr. Francis P. Garvan.

Instruction has been given to 108 first-year students of medicine, to 56 students of dentistry, and to 25 graduate students of whom 10 were major candidates for the Ph.D. degree. The Department has also given facilities to seven special workers in its laboratories.

Professor Gies has continued his study of problems of dental education, following his report for the Carnegie Foundation. He has served as an officer in various public activities: the Committee on Community Dental Service of the New York Tuberculosis and Health Association; as Chairman of the Dental Advisory Board of the Department of Health; as Chairman of the Research Council of the New York Academy of Den-

tistry; and as Secretary of the International Association for Dental Research. Professor Clarke has served as Associate Editor of the *Journal* of the American Chemical Society and on the editorial board of Organic Syntheses.

The Department is fortunate in being the recipient of a gift from the Chemical Foundation amounting to \$20,000 annually for five years in support of chemical research in the general interests of medicine. A considerable part of this fund has been expended in the purchase of the more important chemical journals, which have been deposited in the general library of the School so as to render them available to all departments.

Owing to changes in personnel and environment, research work in biological chemistry at the Medical Center has been rather slow in getting under way, and the volume of published work bears little relation to the amount of research work in progress. Professor Gies has continued his researches on dental chemistry. A study designed to test the hypothesis of the vitality of dental enamel has, up to the present, failed to reveal the presence of any enzymes. He is also directing a research carried on by Dr. Theodor Rosebury (the second holder of the William J. Gies Fellowship in Biochemistry) on the nature of the protein in dental enamel, and has shown this to consist of a substance resembling keratin.

Dr. Clarke has undertaken studies on the nature of the cystine component in proteins, and on the behavior of various carbohydrates towards acetic acid; he has also, at the desire of the Department of Dermatology, developed a method for the estimation of bromides in body fluids.

Dr. Foster has studied the nature of the iodine compounds of the thyroid glands and, in coöperation with the Department of Anatomy, the gonad-stimulating hormone of the pituitary gland.

Dr. Karshan has continued his investigation of the influence of diet on the chemical composition of teeth and bones.

Dr. Krasnow has continued her studies of lecithin and cholesterin, and of the methods for the examination of proteins in blood with a view to applying them to studies of the immunity in syphilis. She has also continued her work on protein metabolism, on the applicability of the methods for determining lipoid phosphorus to other types of material, and has coöperated with the New York State Department of Labor in a study of carbon monoxide.

Dr. Inouye has continued his work on mucins and on the metabolism of the cryptobranchus.

Dr. Kurzrok has undertaken studies of the ovarian hormone present in the urine of pregnant women, the Aschheim-Zondek test for pregnancy, the artificial production of sterility, and on the ciliated epithelium of the uterus and fallopian tubes.

Miss Goettsch has begun a comprehensive study of the nutritional factors affecting growth and reproduction.

Coöperative studies have been instituted in collaboration with other departments of the School; with the Department of Gynecology and Ob-

stetrics, on the chemistry of pregnancy; with the Department of Pathology, on experimental tar cancer; and with the Department of Dermatology, on the urinary bromide content in cases of bromide dermatitis.

The Department has taken over from the Department of Medicine the routine blood analysis for the hospitals and clinics of the Medical Center.

The appointment of Dr. Oskar Wintersteiner, as Assistant Professor has been made. Dr. Wintersteiner is a specialist in the field of microanalysis.

Bibliography

- Gics, W. J.: Addresses on aspects of the Carnegie Foundation's study of dental education, by invitation, at meetings of dental and medical societies: (1) American Academy of Periodontology, Minneapolis, August, 1928; (2) National Association of Dental Examiners, Minneapolis, August, 1928; (3) Ohio State Dental Society, Toledo, December, 1928; (4) Chicago Dental Society, Chicago, December, 1928; (5) Rhode Island State Dental Society, Providence, January, 1929; (6) Kings County Dental Society, Brooklyn, February, 1929; (7) Academy of Medicine, Cincinnati, March, 1929; (8) American Association of Dental Schools, March, 1929; (9) Kentucky State Dental Association, April, 1929; (10) Michigan State Dental Society, June, 1929.
- Gies, W. J. and Bödecker, Charles F.: "Studies of the Validity of Advertised Claims for Dental Industrial Products. II. Lymeogene, a French Toothpowder." Chairman of the Research Council of the New York Academy of Dentistry. *Journal of Dental Research*, April, 1929, p. 171.
- Gies, W. J. and Karshan, Maxwell: "A Study of the Influence of Potassium Chlorate on Nutrition," *Journal of Dental Research*, June, 1928, p. 458.
 - "The Carnegie Foundation's Study of Dental Education; a Reply to Further Comment by Dr. Kells," *Dental Cosmos*, 1928, Vol. 70, p. 663.
 - "Davison's Contribution to an Understanding of the Two-Three-Graduate Plan of Dental Education," *Journal of Dental Research*, 1928, Vol. 8, p. 489.
 - "International Association for Dental Research. Memoranda on the Proceedings in 1927-28," Journal of Dental Research, 1928, Vol. 8, p. 696.
 - "On the Vitality of Dental Enamel," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, p. 69.
- Gies, W. J. and Krasnow, Frances: "A Comparative Study of Some Common Media for the Cultivation of Streptococci," *Journal of Dental Research*, 1928, Vol. 8, p. 439.
 - "Biochemical Studies of Streptococci. 1. A Comparative Study of

Some Common Media for the Cultivation of Streptococci," Journal of Dental Research, 1929, Vol. 9, p. 29.

"Dental Education: a Factor in Public Welfare," Journal of Dental Research, April, 1929, p. 107.

Gies, W. J. and Rosebury, Theodor: "A Simplified Procedure for the Separation and Identification of Protein in Dental Enamel. Proceedings of the International Association for Dental Research," Journal of Dental Research, June, 1929.

"Further Evidence That There is No Metabolism in Enamel of Fully Formed Teeth," Journal of Dental Research, June, 1929.

"International Association for Dental Research. Scientific Proceedings of the Seventh Annual Meeting, March 23 and 24," *Journal of Dental Research*, June, 1929.

Editor: Journal of Dental Research, Volumes 8 and 9.

Karshan, Maxwell: "The Chemistry and Staining Reactions of Keratin," Journal of Dental Research. (In press.)

Krasnow, F.: "A Method for the Determination of Lipin Phosphorus," Proceedings of the Society for Experimental Biology and Medicine, 1929, Vol. 26, pp. 67–68.

Krasnow, F. and Rosen, A. S.: "A Study of the Myers and Wardell Method for the Determination of Cholesterol," *Journal of Laboratory and Clinical Medicine*, 1929. (In press.)

Krasnow, F. and Rosen, I.: "Cholesterol Studies in Syphilis," Archives of Dermatology. (In press.)

"Lecithin Studies in Syphilis," Archives of Dermatology and Syphilology, 1929. (In press.)

Chemical Abstracts—about 200. Biological Abstracts (25).

Krasnow, F. and Rosenberg, M. L.: "Biochemical Studies of the Streptococcus II. Availability of 671 Synthetic Media," *Journal of Dental Research*, 1929, Vol. 9, pp. 123-69.

DEPARTMENT OF DERMATOLOGY

The moving of Vanderbilt Clinic and the reorganization of the Department at the new site have occupied the attention and energy of the staff during the past year. From the day the clinic moved to the Medical Center patients have attended in numbers which have taxed the facilities both as to space and as to medical personnel. For the year 1927–1928, on which the last report was based, the average of monthly visits made by patients was 4,121. Since moving to the new site the attendance has been steadily increasing and for the month of April was 5,672. This included 442 new patients. The total visits to the Vanderbilt Clinic for the same month were 29,755 which means that nineteen per cent of all visits were

made to the Department of Dermatology. This large attendance has furnished excellent clinical material for teaching and research.

The facilities provided at the new clinic have enabled the Department to make a number of improvements in the treatment of patients and in teaching. One great advantage has been the close association with other departments of the clinic and with those of the Medical School. For example, a series of weekly conferences has been organized in conjunction with the Department of Surgery on the treatment of malignant diseases of the skin. These conferences are conducted by Dr. Andrews on Friday afternoons and are attended by members of both departments. All cases of definite and suspected malignant disease are referred to this conference. The problem presented by each case is discussed from the standpoints of the dermatologist, the general surgeon, the plastic surgeon, the physiotherapeutist and the surgical and dermatological pathologist by men especially interested in these respective fields. A plan of treatment is determined and its results observed from week to week. These conferences will make for more systematic and effective treatment of these important diseases.

The new X-ray and radiotherapeutic equipment has made possible improvement in the treatment of many skin conditions especially epitheliomas and angiomas. A recent gift to the Department from Mr. James J. Hill of ten thousand dollars for the purchase of radium will add greatly to the facilities for the treatment of these conditions.

Two years ago Dr. Cannon and Dr. Lowenfish published the first report made in this country on the treatment of varicose eczema and varicose ulceration by injection in the veins and the application of gelatin casts. Since then this method has met with wide acceptance and many favorable reports have been published in various parts of the country. The applications of patients for this treatment have been so numerous that it has been impossible to handle them in the regular afternoon clinic and Dr. Lowenfish has run a special clinic for these cases on Saturday mornings.

A special clinic has also been opened on Monday, Tuesday and Wednesday mornings for the study and treatment of eczema and other allergic dermatoses. These cases present one of the most interesting and important problems in dermatology. The clinic is in charge of Dr. Kesten and Dr. Laszlo. It is run in conjunction with the allergic clinic of the Department of Medicine. The studies made already have determined the causation of eczema in a number of individual cases and the information being gathered will be of great value in the proper classification and management of these eruptions.

A monthly clinic meeting under the chairmanship of Dr. Gross has been held during the winter at the offices of various members of the Department. At these meetings cases of special interest which have appeared during the month are presented and discussed. A Journal Club for members of the Department also meets one evening in the month at which reports in the current medical journals are reviewed. A pathological conference

is held one evening each month at which some special topic in the pathology of some group of skin diseases is studied. Members of the Department of Pathology have participated in these last named conferences.

The change in curriculum which has lengthened the afternoon period of section teaching from two to three hours has enabled us to give in addition to the usual case demonstrations, demonstrations in the histopathology of the skin and practical instruction in microscopic methods in diagnosis of fungus and spirochætal infections. The work has been scheduled so that the daily exercise has consisted of a half hour of laboratory, demonstration, two hours of clinical demonstration and a half hour of clinical lecture. Each student has, also, served one day in the syphilis therapy room and one day in the department of physiotherapy so that he has obtained practical experience in the administration of mercury and salvarsan and has been able to observe the methods of physiotherapy.

An extra lecture period available this year was utilized as a seminar at which the students in groups of two to four made reports on some special dermatological topic. The object was to familiarize each student with the methods and results of investigation in some dermatological problem and to present to the class as a whole the interesting and growing field for research which dermatology offers. The class showed great interest in this work and in some instances much initiative in working up their reports. Two reports represented what was really new material and it is expected that these will be published.

Research

Dr. Cannon in association with Dr. Maechling and Dr. Karelitz has continued his studies on arsenical dermatoses. Dr. Maechling in association with Professor Flinn has developed a new method for the determination of arsenic in the blood which we believe gives more accurate results than the Gutzheit method formerly employed. It is hoped that this improvement in technic will clear up some of the controversial points as to the retention and elimination of arsenic in chronic poisoning.

Dr. Kesten has continued her work on experimental sporotrichosis which she began in Dr. Jadassohn's clinic in Breslau.

Dr. Lowenfish and Dr. Machacek have been conducting experiments in animals on the effects of the fluids used for injections in varicose veins in man.

Dr. Blakemore of the Department of Surgery in collaboration with Dr. Maechling has been studying the penetration of arsenic into the spinal fluid.

Dr. Hopkins has continued his studies on the classification of staphylococci from the skin.

Miss Benham has continued her studies on the classification of moniliæ by agglutination methods. She has also collaborated with Dr. Kesten in determining sensitization of patients to the fungi with which they are infected.

Fungus infections of the skin have on account of their frequency long attracted the interest of dermatologists and the importance of fungi as the cause of skin diseases is becoming more and more recognized. The less frequent systematic mycoses are of almost equal interest to the surgeon and internist and it is probable that infections by these organisms have often remained undiagnosed on account of our inadequate knowledge of the parasites. The need for more careful study of these infections and of the parasites which cause them has long been recognized. However few efforts have been made to make a systematic study of the mycoses, and our knowledge of the identity and classification of the pathogenic fungi is surprisingly deficient.

The Rockefeller Foundation has made to the University a grant of fifty thousand dollars for the study of mycotic infections. This will be administered by a committee on which the Departments of Pathology, Surgery, Medicine, and Dermatology will be represented. As work in this field has been going on for three years in this department the diagnostic laboratory will be located in the dermatological clinic and the research laboratory, in the Department of Pathology. Professor Harper of the Department of Botany has taken a great interest in the project. This fund will enable the Department to secure the services of workers trained in cryptogamic botany who will make a special study of the fungi isolated from human infections. Members of the Departments of Pathology and Dermatology will study the pathogenic properties of these organisms. It is hoped that such collaboration will make a distinct contribution to our knowledge in this important and much neglected field in medicine.

Bibliography

Andrews, George C.: "Treatment of Boils and Carbuncles," American Journal of Surgery, 1929, Vol. 6, p. 458.

Andrews, George C. and Strumwasser, S.: "Pachynychia Congenita." (In press.)

Cannon, A. Benson: "Dermatological Conditions as Seen in Children," Bulletin of The New York Academy of Medicine, 1928, Vol. 4, p. 45.
"Recognition and Treatment of Early Syphilis," Southern Medicine and Surgery, April, 1929.

"Pigmented Growths of the Skin; Their Significance and Treatment." (In press.)

Feit, Herman: "Actinomycosis, Cutaneous and Systemic," Archives of Dermatology and Syphilology, 1928, Vol. 17, p. 791.

Hopkins, J. Gardner: "Multiple Miliary Osteomas of the Skin," Archives of Dermatology and Syphilology, 1928, Vol. 18, p. 706. Hopkins, J. Gardner and Benham, Rhoda H.: "Monilia Infections of the Hands and Feet," New York State Journal of Medicine, May, 1928.

Kesten, Beatrice M. and Martenstein, Hans: "Experimental Sporotrichosis in the White Rat." (In press.)

McCafferty, Lawrence K.: "Folliculitis Decalvans et Atrophicans (Little)," Archives of Dermatology and Syphilology, 1928, Vol. 18, p. 514.

DELAMAR INSTITUTE OF PUBLIC HEALTH

During the past year arrangements have been made whereby the subject of epidemiology will be adequately represented in both teaching and research by the acceptance of the position of Clinical Professor of Epidemiology by Dr. Edward Settle Godfrey, Chief of the Division of Communicable Diseases of the New York State Department of Health. Dr. Godfrey has published important contributions in the field of practical epidemiology, particularly in measles and poliomyelitis. He brings to his present position a wide experience in health administration in several of our states.

Research assistance is provided by the appointment of Miss Christine Galitzi (Ph.D. Columbia in Sociology).

In sanitary engineering, the development of the new air hygiene laboratory required assistance which was provided in the person of Elliott H. Pennell, a graduate student, B.S. from Bowdoin, and candidate for the Master of Science degree in Public Health.

Increased activities in the Institute required the addition of a typist. There have been no other changes in personnel.

Dental students were admitted to the required course in public health for fourth-year medical students.

At Teachers College the usual courses in preventable diseases and public health administration were offered during the Winter and Spring Sessions to classes of about fifty each. Under University Extension a popular course on the principles and problems of the public health movement was offered in cooperation with the National Health Council. Attendance was small (ten students). The course will be offered again next year. In Summer Session, courses in school health supervision and in public health engineering were offered. Graduate instruction has been given to one candidate for the degree of Master of Science in Public Health who should complete his course in September, 1930. Two new candidates for this degree have registered and will begin their work in July, 1929, for a twelve-months' course. During June, 1928, the Professor of Public Health Administration gave a course of thirty lectures on public health to physicians, nurses, teachers and public health officers during a three-weeks' Health Institute under the auspices of the Northern California Public Health Association at the Lane Auditorium of the Stanford Medical School in San Francisco.

Research

In industrial medicine a study of silicosis among rock drillers was completed and published by Dr. Smith. A grant of \$2,000 from the Altman Foundation was obtained for this work through the New York Tuberculosis and Health Association. Practical applications of the findings is being urged through the State Department of Labor and by educational publicity through the New York Tuberculosis and Health Association.

In sanitary science an extensive study of the bacterial contamination of milk as delivered to retail consumers in this city has been made and is being continued for another year under a grant of \$10,000 for each year by the New York Milk Conference Board. Conclusions bearing upon various of the commercial and administrative practices of municipal milk supplies will result from these studies when completed.

An experimental study of swimming pool pollution and its control was made at the expense of the owners of a large outdoor commercial swimming pool. Similar observations were followed to regulate the water treatment of the swimming pool in Maxwell Hall.

The most important project of research since the establishment of the Institute has been the creation of the air hygiene laboratory on the seventeenth floor of the College building. Routine measurements for recording certain characteristics of the atmosphere are made, the present program involving at least the observation of the following phenomena to prepare the groundwork for a study of relationships between atmospheric conditions and health, the electrical properties, potential gradient, ionization, conductivity, ionic mobility; the transparency of the air as it affects solar radiation in various parts of the spectrum, ultra-violet, visible and infrared (heat); the air pollution determined by analysis; and "visibility," the effect of smoke, dust and fog in the lower layers of the air.

In industrial hygiene, studies on the nature of the pigment found in the liver of copper-fed animals have been continued in coöperation with the Department of Pathology. Following earlier published researches on lead poisoning, a study is under way to determine the reasons for individual idiosyncrasy to metallic poisons, lead in particular. A study of the effect of copper on the vitamins contained in dairy products is under way.

In public health administration an analysis of the race incidence of the acute communicable diseases of childhood in certain sanitary areas of Manhattan has been continued and should be completed this year. Progress is being made in the analysis of all births and deaths in New York City since 1868 to be used for teaching and research purposes in the future.

Members of the staff have taken part in many efforts for the education of the laity in matters of public health and in organized series of lectures for physicians and nurses as well. Audiences to a total of several thousand have been reached by word of mouth. The following cities and other communities have been visited for lecture purposes:

San Francisco, California The Yosemite, California Hartford, Connecticut New Haven, Connecticut Washington, D. C. Chicago, Illinois Boston, Massachusetts Battle Creek, Michigan Newark, New Jersey Albany, New York Lake Placid, New York New York City, New York Southold, New York Philadelphia, Pennsylvania

The following professional relationships have been undertaken by members of the staff: consultant to the Milk Industries Board; adviser to clock and watch manufacturers to overcome hazards of luminous dial paints; examiner and adviser of radium workers in the State of New York for the Bureau of Industrial Hygiene of the New York State Department of Labor; consultant to American Public Health Association for Health and Hospital Survey of St. Louis, Missouri; member of Board to report to the mayor of Boston on the present and future needs for hospital care of the sick in that city: director of the Hospital and Health Survey of Philadelphia; member of the Commission of the Health Organization of the League of Nations to study the health facilities and care of the sick, and medical and nursing education in Greece and make recommendations for a national health administration and organization of health service for Athens-Piraeus. For this the Professor of Public Health Administration was allowed absence from February 2 to April 22, 1929.

Miss Grace made her annual gift of \$5,000 to assist in meeting the expenses of research.

Since the establishment of the Institute in 1922 the University has spent \$159,380 on its maintenance, and from outside sources, grants, gifts and payments for researches, the sum of \$76,365 has been received up to May 1, 1929.

The personnel of the Institute is as follows, by divisions of the staff:

Epidemiology one half-time professor one full-time research assistant

Industrial Hygiene . . . one full-time associate in medicine one half-time technical assistant

Industrial Physiology . . one full-time associate professor one full-time clerical assistant one full-time technician one full-time laboratory assistant

Public Health Administration . one full-time professor one full-time statistical assistant one full-time statistical assistant

Sanitary Science one full-time professor one full-time assistant one full-time secretary one full-time laboratory technician

one part-time research assistant two laborers

Bibliography

Emerson, Haven: "Prohibition and Public Health," The Survey, December 1, 1928.

"Public Health in the United States," Encyclopaedia Brittanica, 1928. "Economic Aspects of Heart Disease," American Heart Journal, 1929, Vol. 4, No. 3.

Emerson, Haven and Phelps, Earle B.: Chapter on "Environment," Human Biology and Social Welfare. (Book in press.)

Isaacs, M. L.: "Non-specific Desensitization," Archives of Pathology, 1928, Vol. 5, pp. 1029-39.

Phelps, Earle B.: "The Need of Air-Good and Bad Air," Chemistry in Medicine, 1928, pp. 101-12.

"Pollution of Water by Sewage." Address delivered before American Shore and Beach Preservation Association.

Smith, Adelaide Ross: "Silicosis Among Rock Drillers, Blasters and Excavators," Journal of Industrial Hygiene, February, 1929.

DEPARTMENT OF DISEASES OF CHILDREN

The Department of Diseases of Children has now completed eight years of a period considered by all of its members as formative and transitional formative, because the aim during this time has been to develop a more coördinated course, both for clinical teaching and for research; transitional, because the need for full-time instructors and investigators, and for better hospital and laboratory facilities has always been recognized as essential to further progress. During this time the number of instructors, the personal attention given the students, and the number of hours allotted to the course have all been markedly increased. Administrative, educational and technical responsibilities have grown to such an extent that they can only be carried out satisfactorily by an adequate full and part-time staff. Up to the present, the teaching has been too widely scattered geographically to be well coördinated. Our instruction can no longer be adequately done by men who are in contact with the hospital material only for short periods during daily rounds. It is no longer enough that students be given the theory of the prevention and cure of disease and nutritional management of the early years. Along with this must be carried the advances constantly made in the laboratories of chemistry,

bacteriology and pathology. Didactic instruction, or clinical lectures, given to large groups cannot take the place of personal contacts with students in small groups. This latter type of teaching requires more time in wards and out-patient department than the practicing physician is able to give. With the opening of the Babies' Hospital there will be practically under one roof adequate clinical material in wards and out-patient department, ample space, equipment and personnel to carry on both routine and research in the laboratories of chemistry, bacteriology and pathology. To overcome the old handicaps and make suitable use of the new facilities, it is imperative that the Department be placed on an academic basis, with full-time head and sufficient part-time assistants. This type of organization is now found in every one of the better medical schools in the country.

During the past year, the third-year course has remained unchanged except for slight addition of time given to bedside and out-patient instruction. In the fourth year, students have had rather more hospital opportunity than in previous years. The handicap has been the old one of too widely scattered bases for teaching and too much time lost in travel. It is hoped that the new curriculum will prove to provide sufficient time for more actual contact with well and sick children in both the third- and fourth-year courses. With all undergraduate teaching concentrated to one institution, there will come a saving of time and a better correlation of instruction. Fourth-year electives and graduate courses will be continued at Bellevue Hospital. Third-year electives and routine instruction will be confined to the Babies' Hospital and Vanderbilt Clinic.

Bibliography

Bakwin, Harry: "Enuresis in Children," Archives of Pediatrics, November, 1928.

"Sex Factor in Infant Mortality," Human Biology, January, 1929.

Bakwin, Harry and Bakwin, Ruth M.: "Tetany in Infants," American Journal of Diseases of Children, February, 1929.

"Types of Body Build," American Journal of Diseases of Children, March, 1929.

Caffey, John P. and Bolling, Richard W.: "Complete Duodenal Obstruction in the New Born. Report of Three Cases, Treatment Fully Surgical." (In preparation.)

Caffey, John P. and Kreidel, Katherine: "The Kahn Precipitation Test in Infantile and Early Juvenile Syphilis." (In press.)

"The Micro Kahn Test as a Routine Procedure in Out-Patients, Hospital and Private Practice." (In preparation.)

"Quantitative Serological Studies in Infantile Syphilis." (In preparation.)

- "Serological Observations on the Spinal Fluid in Infantile Syphilis." (In preparation.)
- Caffey, John P. and McLean, Stafford: "Fulminating Meningococcus Meningitis in Infancy and Early Childhood." (In preparation.)
- Caffey, John P., McLean, Stafford and Sullivan, Ruth C.: "Acute Hemorrhagic Syphilitic Nephritis in Infancy." (In preparation.)
- Caffey, John P., and Wollstein, Martha: "Obstetrical Injury of the Spinal Cord. A Report of the Clinical and Anatomic Findings in Three Cases." (In preparation.)
- Campbell, Meredith A.: "Ureteral Obstruction in Infancy," American Journal of Surgery, December, 1928.
 - "Uropathology of So-called Chronic Pyelitis in Infancy and Childhood," Urologic and Cutaneous Review, April, 1929.
 - "Gonococcus Prostatic Abscess in Infancy," Journal of Urology. (In press.)
 - "Chronic Pyuria in Infancy and Childhood," American Journal of Medical Sciences. (In press.)
 - "Neurogenic Bladder Dysfunction in Infancy and Childhood," Journal of American Medical Association. (In press.)
 - "Congenital Bladder Outlet Obstruction in Infancy and Childhood," New York State Journal of Medicine. (In press.)
- Campbell, Meredith A. and Lyttle, John D.: "Ureteral Obstruction in Infants," Journal of American Medical Association, February 16, 1929.
- Claman, Irving and Sobel, Jacob: "Use of Irridiated Ergosterol in Active Rickets," *Archives of Pediatrics*, January, 1929.
- Cox, Pauline: "Studies of the Blood Changes After Treatment with the Quartz Lamp." (In preparation.)
- Fitzpatrick, Florence K.: "Studies in the Agglutination of A. Abortus and A. Melitensis in the Blood of Infants." (In preparation.)
- Freeman, Rowland G., Jr. and Karshan, Maxwell: "Calcium and Creatinine Studies," Archives of Pediatrics. (In press.)
 - "Methods of Hemoglobin Determination," Journal of Laboratory and Clinical Medicine. (In press.)
- Freeman, Rowland G., Jr., Freeman, Rowland G., Sr. and Miller, E. G.: "Indicanuria, Carbohydrate Fermentation and Stool Fat," *Archives of Pediatrics*. (In press.)
- Freeman, Rowland G., Jr. and Wechsler, Davis: "Studies in Chronaxie," Archives of Neurology and Psychiatry. (In press.)
 - "Growth of Private School Boys," Archives of Pediatrics. (In press.)
- Graves, Gaylord W. and Blank, George A.: "Unusual Association of Post-infantile Rickets with Osteomalacia," American Journal of Diseases of Children. (In press.)

- Hanlon, Lawrence V.: "Treatment of Infectious Diarrhoea in Infants," Archives of Pediatrics. (In press.)
- Johnson, F. Elmer: "Papilloma of Esophagus," American Journal of Diseases of Children, 1928, Vol. 7, pp. 536-38.
 - "Acute Intestinal Intoxication." Paper read at Fifth Avenue Hospital, May 15, 1929.
 - "Birth Sepsis." (In preparation.)
 - "Causes of Death in Infants under Three Months of Age." (In preparation.)
- Johnson, F. Elmer and Kernan, John D.: "Actinomycosis of the Lung," American Journal of Diseases of Children, 1928, Vol. 36, pp. 508-14.
- Kjerszturi, Camille: "B.C.G. Vaccine on Human Beings in New York City," American Journal of Diseases of Children. (In press.)
- Kjerszturi, Camille and Park, William H.: "B.C.G. Vaccine in New York City," American Journal of Diseases of Children, February, 1929.
- Kreidel, Katherine: "The Blood Picture in Congenital Lues Before and After Anti-luetic Treatment." (In preparation.)
- Lang, Charles A.: "Secondary Anæmia. Case Report." (In preparation.)
- Lyttle, John D. and Campbell, Meredith A.: "Ureteral Obstruction in Infants," Journal of the American Medical Association, February 16, 1929.
- Lyttle, John D. and Rosenberg, Lester: "The Blood as a Diagnostic Aid in the Differential Diagnosis of the Lymphadenopathies," *Annals of Internal Medicine*, February, 1929.
- MacDonald, A. A., McLean, Stafford and Sullivan, Ruth C.: "Acute Phosphorus Poisoning." (In preparation.)
- Merritt, Katherine K.: "Tuberculosis under One Year. Study of Autopsy Material at Harriet Lane Hospital, Baltimore," American Journal of Diseases of Children. (In press.)
- Nicolson, Gertrude H. B., Shulman, Harold I. and Green, Dorothy L.: "Congenital Heart Block in an Infant with Report of a Case," American Journal of Diseases of Children, March, 1929.
- Reynolds, Robert G.: "Familial Relationships in Blood Grouping of Infants and Young Children." (In preparation.)
- Rosenberg, Lester and Judd, George E.: "Congenital Atresia of the Bile Ducts," Archives of Surgery. (In press.)
- Rosenberg, Lester and Lyttle, John D.: "The Blood as a Diagnostic Aid in the Differential Diagnosis of the Lymphadenopathies," *Annals of Internal Medicine*, February, 1929.
- Smith, Charles Hendee: "The Tuberculin Skin Reactions." (In press.)
 "A Movable Cubicle Unit." (In press.)

- "Acrodymia. Case Report." (In press.)
- Smith, Charles Hendee and Sutton, Lucy Porter: "Diseases of the Circulatory System." D. Appleton & Company. New York.
- Stamper, Ina: "Studies of the Blood in Infants with Tuberculosis." (In preparation.)
- Sturtevant, James M.: "Pneumococcus Septicemia in an Infant with Metastasis and Recovery. A Case Report." (In preparation.)
- Sullivan, Ruth C.: "Quantitative Urobilinogen Studies in Infancy." (In preparation.)
- Sullivan, Ruth C. and MacLean, A. B.: "Chemical Studies of Cerebrospinal Fluid in Tuberculous Meningitis and Encephalitis Lethargica." (In preparation.)
 - "Blood Inorganic Phosphorus After Ingestion of Glucose." (In preparation.)
- Sullivan, Ruth C., McLean, Stafford and Caffey, John: "Chemistry in Syphilitic Nephritis." (In preparation.)
- Sullivan, Ruth C., Wollstein, Martha and Kreidel, Katherine: "Urobilinogen Studies in Infants Suffering from Anemia." (In preparation.)
- Sutton, Lucy Porter: "Observations and Certain Etiological Factors in Rheumatism," *Journal of the American Heart Association*, December, 1928.
 - "Follow-up Case of the Cardiac Child," Bulletin of New York Tuberculosis Health Association. (In press.)
- Wilke, Frederick H.: "Classification of the Specimens of Congenital Cardiac Malformation in the Pathological Museum at the Babies' Hospital." (In preparation.)
 - "Bacteriology of Otitis Media. A Clinical and Bacteriological Study." (In preparation.)
- Wollstein, Martha: "Congenital Cystic Kidneys." (In preparation.)
- Wollstein, Martha and Fitzpatrick, Florence K.: "Types of Pneumococci Isolated from Cases of Pneumonia in Infants and Young Children." (In preparation.)
- Wollstein, Martha and Kreidel, Katherine: "Liver Therapy in Anemia in Young Children." (In preparation.)
- Wollstein, Martha, Sullivan, Ruth C. and Kreidel, Katherine: "Urobilinogen Studies in Infants Suffering from Anæmia." (In preparation.)

DEPARTMENT OF NEUROLOGY

During the past year the Department of Neurology has entered upon a new and important phase of its development, keeping pace with the general movement in all of the departments of the Medical School. The main features in this new phase of development have been expansion of the

Neurological Department and its combination with other important neurological organizations.

The Department now occupies the major portion of an entire floor in the School building. This space is being devoted almost exclusively to the purposes of research, which aims to cover the field of neurology in the broadest possible sense. The investigations now in process have a wide scope, a detailed summary of which appears subsequently in this report.

The clinical expansions in neurology have been as important as the increased laboratory facilities. The past year has witnessed the final integration of the out-patient neurological work in the Vanderbilt Clinic with the organization of the Neurological Institute and the Neurological Department of the University. This combination is an epoch-making one in the field of American neurology. Never before in this country has a great neurological hospital been joined in cooperation with one of the largest metropolitan clinics and a fully equipped university department. This merger aims to provide the best facilities for bringing aid to those who suffer from neurological diseases.

The Neurological Institute of New York completed its new building and in March of this year became an integral part of the Medical Center. The new hospital was built and fully equipped at an approximate expenditure of \$2,000,000. This entire amount has been raised and the building is now free and clear. The new hospital makes provision for more than 200 patients, both in private rooms and wards. It also provides housing for its interne staff of twelve medical officers, and a large number of its nurses. While it is constructed primarily for the care of the sick, it offers ample facilities for the teaching of medical students, both graduate and postgraduate. From the standpoint of treatment the Institute is one of the best equipped establishments of its kind. Its surgical equipment is complete and has every modern appliance for neurological surgery. Its therapeutic departments make provision for every type of water treatment and baths, for ray and heat treatment, for electrical, mechanical, and occupational therapy.

The Institute is not merely a thoroughly efficient organization for the treatment and teaching of neurological diseases, but by its physical connection with the State Psychiatric Institute next door to it forms a medical unit unique in the development of medicine. The care and vision employed in the construction of this combination have established an alliance in these branches of medicine which is sure to serve as a model for future undertakings of this kind elsewhere. Every effort has been made to secure the highest efficiency in caring for the sick, the greatest facilities for research, and the best organization for teaching. It does not seem an overstatement of facts to say that these two institutes, individually and collectively, consummate the aspirations of many years of effort in neurology and psychiatry.

The activities of these two institutes in combination with the outpatient department in the Vanderbilt Clinic and the neurological laboratories of the University have been merged into a coöperating unit under the direction of a single Council in the Medical School. This Council consists of all officers of professorial rank. Its meetings are held monthly. The Council formulates the policies of undergraduate and postgraduate teaching and directs all neurological research carried on under the auspices of the University. The Executive Officer of the Neurological Department represents the Council in the Committee on Administration.

The total Neurological staff engaged in University work consists of 128 workers. The professional staff of the Neurological Institute comprises 62 physicians, divided as follows:

- 8 Senior Attending Neurologists
- 11 Attending Neurologists
- 17 Associate Attending Neurologists
- 4 Adjunct Attending Neurologists
- 22 Assistants

The staff of the out-patient Neurological Department of the University is under the direction of Professor Casamajor, who is Executive Officer of the Department of Neurology and a senior member of the Medical Board of the Neurological Institute. Operating the clinic, Professor Casamajor has under him 5 chiefs, 10 assistant chiefs, 60 attending physicians and 28 assistants. The laboratory staff comprises 25 research workers, all members of the Department.

In consequence of the large staff, each special field of neurology is now in charge of an individual, skilled in that branch. Professor J. Ramsay Hunt, Chairman of the Neurological Council, supervises the study and treatment of functional diseases of the nervous system. The division organized under his direction is devoting special attention to psychotherapy, with the express intention of determining the different groups and classes of patients best adapted to the several different lines of treatment.

Professor Walter Timme has charge of the division dealing with diseases of the glands of internal secretion. This important undertaking has its own special clinics, and has developed a large group of highly trained workers in this field.

Professor Edwin G. Zabriskie supervises the work of the Child Guidance Department, and has established many important connections essential to the study of the problem child. This division of neurological work is developing a field of utmost importance in dealing with many of the most urgent and complex problems of our social organization.

Professor Louis Casamajor supervises the work of neuro-pathology and by his relations with the out-patient department and the Neurological Institute is in the most advantageous position to direct further progress in our neuro-pathological activities. Professor Oliver Strong supervises the work in morphology of the nervous system. Professor Charles A. Elsberg directs the division of neurological surgery, while the research and teaching of neurophysiology is under the direction of Professor Frank N. Pike. Professor Frederick Tilney is in charge of the organic diseases of the nervous system, especially the infectious disorders of the brain and spinal cord.

This year we are fortunate in the addition to the staff of Professor Josephine B. Neal. Dr. Neal's long experience with acute infections of the nervous system through her connection with the Department of Health, New York City, strengthens the Neurological Department in a field of greatest importance. Dr. Neal's activities with the William J. Matheson Encephalitis Commission gives her department added significance from the standpoint of teaching and research.

Another addition to the Department this year is that of Professor Adolph Elwyn, who has been transferred from the Department of Anatomy with the special purpose of developing invertebrate neurology. Professor Elwyn's investigations will be confined exclusively to the embryology and histology of the nervous system in invertebrates. In this way the Department of Neurology will be enabled to cover the morphology of the nervous system in all of its evolutionary aspects.

Dr. Charles A. McKendree, Dr. Joshua Rosett, Dr. Burns Craig, and Dr. Irving Pardee, have been advanced to the grade of Assistant Professor.

In the effort to secure the most effective development of neurology and intimately associated fields, the coöperation of the Departments of Psychology and Psychiatry have been sought. The Department's desires in this respect have met with favorable response, and the Department of Psychology has made it possible for Professor Poffenberger to become a member of the Neurological Council, the meetings of which he has attended throughout the year to great advantage. Professor Kirby of the Department of Psychiatry has likewise become a member of the Neurological Council. The need of this close alliance of correlated departments has long been felt. The combination now made effective has already proved to be of highest value in securing the requisite interdepartmental coöperation.

A plan for large expansion in the teaching of neurology and psychiatry has been formulated by the Council during the past year and will be in operation in the fall of 1929. It has long been felt that both neurology and psychiatry are essentially postgraduate subjects. With this viewpoint in mind, the Neurological Council has organized an extensive group of postgraduate courses to be given under the auspices of the University in the College of Physicians and Surgeons, in the Neurological Institute of New York and in the New York Psychiatric Institute and Hospital. These courses are designed for postgraduate medical students and many others interested in neurology and psychiatry. In addition to an extensive clinical survey the courses aim to cover the sociological and educational aspects of the subject. They are arranged as quarterly lecture courses, con-

tinuous lecture courses, special lecture courses, clinical courses in hospitals and institutions, demonstration courses, research courses, and combined courses. The quarterly courses offer an especially attractive feature in this postgraduate program. Each of them comprises sixteen lectures, lasting eight weeks. They are given by outstanding authorities in this country and abroad including: Dr. Bernard Glueck, Dr. Louis Casamajor, Dr. A. A. Brill, Dr. Marion E. Kenworthy, Dr. Smith Ely Jeliffe, Dr. Frankwood Williams, Dr. Walter Timme, Dr. Smiley Blanton, and Dr. Alfred Adler of Vienna. The chief feature of these lectures is their broad psychological interest. They cover the following topics:

Psychology of Crime and the Criminal
The Organization and Development of Personality
The Principles and Practice of Psychoanalysis
Maladjustments of Childhood
Mental and Nervous Reactions in General Diseases
Mental Hygiene
Endocrine Glands in Health and Disease
Psychology of Child Development and Training

Continuous courses throughout the year will be given by Doctors Kirby, Tilney, Detwiler, Haviland, Strong, and Mr. Prescott Lecky. These lectures cover subjects of:

Systematic Psychiatry
Neuropsychiatry and the Law
The Place of the Nervous System in Nature and in the Life of
Man
The Foundations of Dynamic Psychology
Diagnostic Localization
The Physiology of the Nervous System

In addition to these courses there will be postgraduate opportunities in neurology and psychiatry for bedside instruction and practical experience in the institutes and out-patient departments of the University. It is probable that no similar postgraduate opportunity may be found elsewhere today, chiefly because the Medical Center now offers the most complete combination of teaching and research facilities.

Instruction in the fundamentals of neurology has also been improved. In the coming year the Neurological Department will have control of all matters pertaining to undergraduate neurological study. The addition of a course in the method of neurological examination during the second year creates an uninterrupted neurological discipline throughout the four years of medical study. While the undergraduate teaching of neurology may possibly be looked upon as second in importance to the postgraduate teaching, there is an irreducible minimum which every graduate medical student requires. It is our aim to provide this minimum especially as it is now possible for the student to carry his work in neurology as far as he

may desire in the postgraduate courses now available to him, after he has received his medical degree. Teaching facilities for the undergraduate are provided by the neurological laboratories, by clinical exercises in the Vanderbilt Clinic and the Neurological Institute, and also in the Montefiore Home of the City Hospital.

Research

Under the direction of the Committee on Research and Publication of the Neurological Institute, an extensive program in research has been developed. The Board of Trustees of the Institute authorized raising a fund of \$2,000,000, the income of which is to be devoted to carrying on research work. Among the most important individual features of this research program is the proposed organization of investigation concerning the nature of those organic brain changes of early life which lead to maladjustments, delinquency, and criminal tendencies. These changes, it is presumed, are partly due to prenatal disorders which have an unfavorable influence upon the development of the brain. They are also produced by many factors in the environment and early management of infants capable of causing disease, perversion or other abnormality of the nervous system. Endocrine disorders which may induce delinquent and criminal tendencies will also be investigated. The annual budget for this special research alone requires approximately \$40,000.

Through the munificence of Dr. William J. Matheson the sum of over \$39,000 has already been contributed to the Matheson Encephalitis Commission for carrying on the investigation of encephalitis work during the coming year. This research embraces a comprehensive series of therapeutic tests, particularly with vaccines and sera. The hospital facilities for this study were made possible through the gift of Mr. J. Pierpont Morgan, and the clinical work will to a large extent be carried on in the Morgan wards of the Neurological Institute.

Researches carried on in the Neurological Department under the grant made by the Commonwealth Fund have progressed favorably in the past year. The epilepsy research under the direction of Professor Elsberg has produced several important contributions to this subject, one of which was presented by Professor Pike in Atlanta at the annual meeting of the Society for the Study of Epilepsy.

The work on multiple sclerosis under the direction of Professor Tilney has developed along certain important chemical lines dealing with the nature and deposition of myelin in the nervous system. It will be the subject of an early communication.

The following research work is in progress:

Dr. Louis S. Aaronson: Statistical study of epilepsy.

Drs. Hilda W. Allen, Royal G. Cannaday, George A. Gosselin: Endocrine aspects of the convulsive states.

Dr. Eric Alling: Torticollis, study of the end results of wry neck.

Dr. Richard Brickner: (1) Multiple sclerosis; (2) comparative anatomy of the thalamus; (3) elaboration of the theory of decussation of the nerve fibers in the central nervous system; (4) cerebral cortex in relation to autonomic functions.

Dr. Samuel Brock: Basal ganglian disease and involuntary movements.

Dr. Samuel Burchell: The pyramidal system complex, including a study of phylogenesis and ontogenesis.

Dr. Beverly Chaney: (1) Intracranial birth injuries in relation to the behavior disorders of childhood; (2) a field survey of the schools in the metropolitan district. Readjustment of problem boys and girls under the Guidance Department.

Dr. Leon Cornwall: Multiple sclerosis.

Dr. C. Burns Craig: Pylometer reactions in the diagnosis of levels of spinal cord lesions.

Dr. George A. Cumbler: A study of chorea in its chemical, clinical, and pathological, serological, and physiological aspects.

Dr. Clarence D'Alton: Psychoneuroses and epilepsy.

Dr. Mark Daly and Dr. Alexander H. Williamson: Fear reactions in the behavior of individuals under normal and pathological conditions.

Dr. Leo Davidoff: Pathological studies of the immediate and later effect of the electrical scalpel upon the tissues of the central nervous system.

Dr. Thomas K. Davis: The vegetative system, especially the cervical sympathetic.

Dr. Louis J. Doshay: The spinal fluid in Jacksonian and idiopathic epilepsy.

Dr. Charles A. Elsberg: Brain tumors.

Dr. Frederick Farnell: Treatment of encephalitis.

Dr. Laurent Feinier: Normal sensory levels.

Dr. Angus Frantz: (1) The relation of athetosis to hemiplegia; (2) chronic anterior poliomyelitis, intensive follow-up study backed by autopsy material.

Dr. H. I. Gosline: Sympathetic control of the heart rate in delinquents as recorded by the polygraph.

Dr. Edward M. Gould: A Study of brain tumor involving the medulla and pons.

Dr. Leizer Grimberg: The eiditic imagery in relation to personality and temperament.

Dr. Hubert Howe: Vitamin deficiency. Diseases of the nervous system with special relation to subacute combined sclerosis.

Dr. James E. Huddelson: Anthropometric and biochemical indices in normal subjects in their relation to intelligence and mental deviation.

Dr. George Hyslop: A study of the intravenous action of sodium amytal as a new sedative in general anesthetic.

Dr. Dorothy Klenke: Use of pituitrin, nitrate of amyl, and other drugs, for the determination of manometric block.

Dr. Walter M. Kraus: Cardiotachometry for the continuous recording of the heart action for hours and days.

Dr. L. Vosburgh Lyons: Nuclear masses in tract connections of the brain, reconstructed in transparent models.

Dr. Charles A. McKendree: Differential diagnosis of brain and spinal cord tumors from conditions closely resembling them.

Dr. Thomas Mackie: Trigeminal neuralgia and its treatment by trichlorethylene.

Dr. John McKinney: Investigation of the nature of the emotions.

Dr. Russel G. MacRobert: Clinical and histopathological study of epilepsy.

Dr. Florizel deL. Meyers: Calcium and thyroid therapy.

Dr. Irving Pardee: Endocrine types in relation to personality variation.

Dr. Samuel Reback: Blood pressure in the neuroses.

Dr. Henry A. Riley: (1) Study of the fiber pattern in the cerebellum of mammals and man; (2) the optic thalamus in apes and man; (3) the production of an atlas of the human brain stem; (4) study of the gray matter in the sub-orders of mammals; (5) the fissures, convolutions and special areas in the brains of mammals; (6) report of the results obtained by ramisectomy; (7) the study of a family presenting a type of myelodysplasia; (8) a study of the visual hallucinations in brain tumors; (9) alteration of the frontal, sylvian and cerebello-cerebellar axes in mammals as indicative of regional expansion.

Dr. Joshua Rosett: Diagnosis and localization of brain tumors.

Dr. Leon A. Salmon: Diagnostic value of intradermal injection of the cerebrospinal fluid.

Dr. Irving J. Sands: (1) Mental survey of high school students of superior grade; (2) traumatic disorders of the brain.

Dr. Nathaniel Silverman: Hypnosis. Dr. Miguel Steinberg: The epilepsies.

Dr. Junius Stephenson: Paralysis agitans and multiple sclerosis.

Dr. Frederick Tilney: (1) The vaccine and serum treatment of encephalitis; (2) the value of water treatment in the various types of hydrotherapy as applied to nervous and mental diseases; (3) analysis of mental states on an organic basis with Dr. Casamajor.

Dr. Walter Timme: Pluriglandular syndromes.

Dr. Israel S. Wechsler: Comparative study of the neuroses throughout the world in different races, tribes and peoples.

Dr. Samuel Weingrow: Epilepsy.

Dr. Edwin Zabriskie: The relation of the pupils to diseases of the nervous system including knowledge of the sympathetic and parasympathetic.

Special Institute research program under the direction of Doctors Zabriskie, Timme and Tilney to study the following aspects of organic brain changes in early life leading to maladjustments, delinquency, and criminal tendencies:

- 1. Prenatal brain disorders, experimentally and clinically studied by chemical factors of human pregnancy as influencing the development of the brain.
 - 2. Endocrine disorders determining delinquent and criminal tendencies.
- 3. Factors of the early postnatal development of the child leading to maladjustment and antisocial reactions.

Bibliography

- Berens, Conrad, Hardy, L. H. and Stark, Elizabeth K.: "Divergence Excess; Its Frequency; Its Correlation with Refraction; and the Value of Orthoptic Treatment," *Transactions of the American Ophthalmological Society*, 1929.
 - "A New Eye Cautery," Transactions of Section on Ophthalmology of the American Medical Association, 1928.
- Berens, Conrad and Losey, R. R.: "A New Arrangement of the Beebe Loupe," Transactions of Section on Ophthalmology of the American Medical Association, 1928.
 - "Vaccine Therapy in Diseases of the Eye, Eno Laboratory, New York Eye and Ear Infirmary," American Journal of Ophthalmology, 1929, Vol. 12, pp. 11–20.
 - "Traumatic Ophthalmology—Contusion of the Eyelids and Concussion of the Eyeball," American Journal of Surgery, 1929, Series 6, pp. 45-50.
- Berens, Conrad, Losey, R. R. and Stark, Elizabeth K.: "The Diagnosis and Treatment of Non-paralytic Strabismus," New York State Journal of Medicine, 1929; American Journal of Ophthalmology, 1928, Vol. 11.
- Berens, Conrad, Smith, H. T. and Cornwall, L. H.: "Changes in the Fundus and in the Blood Pressure in the Retinal Arteries in Increased Intracranial Pressure (Papilledema and Optic Atrophy)." Paper read before the Association for Research in Nervous and Mental Diseases, December, 1927.
- Berens, Conrad and Taylor, Mary K.: "The Importance of Social Service and Clinic Management in Ophthalmological Clinics," New York State Journal of Medicine, December 15, 1928.
- Blakeslee, George A.: "Traumatic Partial Hemisection of the Spinal Cord," Archives of Neurology and Psychiatry, June, 1929.
- Brickner, R. M.: "The Oculo-auricular Associated Movement," Archives of Neurology and Psychiatry, 1928, Vol. 19, pp. 104-109.
- Brickner, R. M. and Cornwall, L. H.: "The Behavior of Certain Lipoids during the Process of Myelinogeny," Archives of Neurology and Psychiatry, June, 1929.

- "Certain Characteristics of the Cortical Influence over the Sympathetic Nervous System in Man." (In press.)
- "A Case of Disease of the Sella Turcioa, Vault of the Skull and Lumbar Spine, with Recovery." (In press.)
- "A New Tract in the Teleostean Brain Stem." (In press.)
- Brickner, R. M. and Zemansky, A. Philip: "Sympathetic Irritation in a Case of Actinomycosis," *Archives of Neurology and Psychiatry*, 1928, Vol. 19, pp. 515-19.
 - "A Description and Interpretation of Certain Parts of the Teleostean Midbrain and Thalamus," *Journal of Comparative Neurology*, February 15, 1929.
- Brown, Sanger: "A Psychiatric View of Crime and the Criminal." Reprinted from Proceedings of 52nd Annual Session of the American Association of the Study of the Feebleminded, June, 1928.
 - "Preventive Work Undertaken during the Year and Future Plans," Psychiatric Quarterly, July, 1928.
 - "Speech Disorders in Children," Association Press, July, 1928.
 - "Why Men Fail and Become Dependent," Psychiatric Quarterly, April, 1929.
 - "The Administration and Medical Service of the New York State Schools," *Psychiatric Quarterly*, July, 1929.
- Burchell, Samuel C.: "Marcel Proust, an Interpretation of His Life," *Psychoanalytic Review*, 1928, Vol. 15, pp. 300-303.
 - "The Frail Sister Forgets Herself," Journal of Nervous and Mental Disease, 1928, Vol. 68, pp. 225-30.
- Casamajor, Louis: "Some Central Nervous System Factors in the Make-up of Consciousness," American Journal of Psychiatry, November, 1928.
- Cornwall, Leon H.: "Changes in the Fundus and in the Pressure in the Retinal Arteries in Increased Intracranial Pressure," Archives of Neurology and Psychiatry, December, 1928.
 - "Behavior of Certain Lipoids during the Process of Myelinogeny," Archives of Neurology and Psychiatry, June, 1929.
- Craig, C. Burns: "Sciatica, a Symptom in Rapidly Fatal Sarcoma of the Pelvis," New York State Journal of Medicine, May 15, 1929.
 - "Study of the Sweating Reaction Induced by Administration of Pilocarpine in Diseases of the Spinal Cord (with Particular Reference to Its Use as an Aid in Localizing the Segmental Level of Spinal Cord Tumors)," Association for Research in Nervous and Mental Diseases. Volume on The Sympathetic Nervous System, 1929.
- Davidoff, Leo M.: "A Visit to Professor Foersters' Clinic in Breslau with Special Observation of His Treatment of Epilepsy," *Psychiatric Quarterly*, July, 1928.

- "Staining Fibrillary Neuroglia in Formalin-fixed Material," American Journal of Pathology, September, 1928.
- "The Brain in Mongolian Idiocy," Archives of Neurology and Psychiatry, December, 1928.
- Davidoff, Leo M. and Ferraro, Armando: "The Reaction of Oligodendroglia to Brain Injury," *Archives of Pathology*, December, 1928.
 - "Brain Tumors among Mental Hospital Patients, An Histological Study," American Journal of Psychiatry, January, 1929.
 - "Treatment of Hydrocephalus. Historical Review and Description of a New Method," Archives of Surgery, April, 1929.
 - "Hemangioblastoma of the Cerebellum," American Journal of Pathology, March, 1929.
- Davis, Thomas K.: "Review of the Literature on Diseases of the Nervous System for the Past Year," Nelson's Loose-Leaf Medicine, 1928.
 - "The Neurological Aspects of Intermittent Claudication," Archives of Neurology and Psychiatry, March, 1929.
- Elsberg, Charles A.: "The Role of the Dura Meter in Cranial Decompressive Operations," *Annals of Surgery*, 1928, Vol. 87, pp. 15-18.
 - "Extradural Spinal Tumors; Primary, Secondary, Metastatic," Surgery, Gynecology and Obstetrics, 1928, Vol. 46, pp. 1–20.
- Elsberg, Charles A. and Constable, Kate: "Tumors of the Cauda Equina and the Differential Diagnosis between New Growths and Inflammatory Lesions of the Caudal Roots." Paper read at the meeting of the American Neurological Association, May, 1929.
- Elsberg, Charles A. and Globus, J. H.: "Tumors of the Brain with Acute Onset and Rapidly Progressive Course," *Archives of Neurology and Psychiatry*, May, 1929.
 - "The Surgery of Infiltrating Tumors of the Brain with Special Reference to the Astrocytomata and Their Removal by Electrosurgical Methods," Surgery, Gynecology and Obstetrics, June, 1929.
 - "Tumors of the Spinal Cord. Problems in Their Diagnosis and Localization. Procedures for Their Exposure and Removal," Archives of Neurology and Psychiatry. (In press.)
- Elsberg, Charles A. and Silbert, S.: "The Ventricular System; Its Relation to the Cerebellum. Ventriculography and Other Ventricular Evidence in the Recognition of Cerebellar Disease," *Archives of Neurology and Psychiatry*, 1928, Vol. 19, pp. 596–616.
 - "Fractures of the Spine and Their Treatment, Amount of Disability and Indications for and Results of Operative Interference. United States Department of Labor, Bureau of Labor Statistics," 15th Annual Meeting of the International Association of Industrial Accident Boards and Commissions, September, 1928.

- Elsberg, Charles A. and Straus, Israel: "Tumors of the Spinal Cord Which Project into the Posterior Cranial Fossa. Report of a Case in Which a Growth Was Removed from the Ventral and Lateral Aspects of the Medulla Oblongata and Upper Cervical Cord," Archives of Neurology and Psychiatry, 1929, Vol. 21, pp. 261-73.
- Evans, Archibald P.: "A Method of Controlling the Destructive Action of the Roentgen Ray on Living Tissue," Archives of Physical Therapy, X-Ray and Radium, April, 1929.
- Goodhart, S. P. and Savitsky, Nathan: "Significance of Infection in the Vegetative Symptomatology of the Neuroses," *The Journal of Nervous and Mental Disease*, January, 1929.
- Goodhart, S. P., Wechsler, I. S. and Brock, S.: "Remarkable Extrapyramidal Involuntary Movements. A Spinal Flexion-Extension and a Mesencephalic Progression Reflex," Archives of Neurology and Psychiatry, June, 1929.
- Gosselin, G. A.: "The Importance of Aerophagia in the Neuroses," Archives of Neurology and Psychiatry. (In press.)
- Howe, Hubert S.: "Physiological Mechanism for the Maintenance of Intracranial Pressure," *Archives of Neurology and Psychiatry*, November, 1928.
- Huddleson, James H.: "Meralgia Paresthetica," American Journal of Medical Sciences, June, 1928.
 - "Chronic Choreas, Their Diagnosis and Treatment," New York State Journal of Medicine, November, 1928.
- Hunt, J. Ramsay: "The Erethitic and Kolytic and Their Relation to the Processes of Excitation and Inhibition. A Contribution to the Subject of Temperament and Psychological Types," Journal of Abnormal and Social Psychology, 1928, Vol. 23, No. 2.
- Hyslop, George H. and Lenz, Maurice: "Radiation Treatment of Glioma of the Brain," American Journal of the Medical Sciences, July, 1928.
- Masson, Clement B.: "Dangers of Diagnostic Puncture in Increased Intracranial Pressure Due to Tumor of the Brain," Archives of Neurology and Psychiatry, May, 1929.
- McKendree, Charles A.: "Neurological Examination." Published by W. B. Saunders Company, October, 1928.
- Neal, Josephine B.: "The Present Status of the Etiology of Epidemic Encephalitis," Journal of the American Medical Association, 1928, Vol. 91, p. 231.
 - "Possibility of the Use of Antibody Preparations in the Treatment of Epidemic Meningitis," Journal of the American Medical Association, 1928, Vol. 91, p. 1427.
 - "Unusual Infections of the Central Nervous System," Archives of Neurology and Psychiatry, 1929, Vol. 21, p. 451.

- Notkin, J.: "A Contribution to the Subject of Epilepsy with Especial Reference to the Literature," Journal of Nervous and Mental Disease, 1928, Vol. 67, p. 321, 457.
 - "Is There an Epileptic Personality Make-up?" Archives of Neurology and Psychiatry, 1928.
 - "Chloride-Bromide Treatment in Epilepsy," Archives of Neurology and Psychiatry, 1929, Vol. 21, pp. 165-78.
 - "Epileptic Manifestations in the Group of Schizophrenic and Manic Depressive Psychoses," *Journal of Nervous and Mental Disease*, 1929.
 - "Epileptic Manifestations in Chronic Epidemic Encephalitis." (In press.)
- Osnato, Michael: "Experience with Silver Salvarsan in the Treatment of Multiple Sclerosis," Journal of Nervous and Mental Disease, June, 1928.
 - "Neurology in Relation to Compensation Decisions," Rehabilitation Review, August, 1928.
 - "The Psychology and Psychotherapy of the Impotent," Urologic and Cutaneous Review. (In press.)
 - "The Role of Trauma in Various Neuro-psychiatric Conditions," American Journal of Psychiatry. (In press.)
 - "Our Knowledge of Epilepsy Brought up to Date," Journal of Mental and Nervous Disease. (In press.)
- Osnato, Michael and Alter, Nicholas M.: "Myasthenia Gravis with Status Lymphaticus and Multiple Thymic Granulomata," Archives of Neurology and Psychiatry. (In press.)
- Peterson, Frederick: "Mind, Religion and Medicine," Sir Frederick Mou Memorial Volume. Published by H. K. Lewis & Company, London, 1929.
- Pike, F. H.: "A Further Note on the Difficulties Encountered by Land Vertebrates in Their Development," *Science*, 1928, Vol. 68, pp. 378-79.
 - "The Driving Force in Organic Evolution and a Theory of the Origin of Life," *Ecology*, 1929, Vol. 10.
- Pike, F. H., Elsberg, C. A., McCulloch, W. S. and Rizzolo, A.: "Observations on Experimentally Produced Convulsions; the Localization of the Motor Mechanisms from which Clonic and Tonic Movements Arise," American Journal of Psychiatry. (In press.)
- Riley, Henry A.: "Neurological Aspects of Low Back Pain," Journal of American Medical Association, February, 1928.
 - "The Mammalian Cerebellum," Archives of Neurology and Psychiatry, November, 1928.
 - "Mammalian Cerebellar Patterns," Transactions of the Association for Nervous and Mental Research, 1928, Vol. 6.

- Rosett, Joshua: "The Epileptic Seizure. Its Relation to Normal Thought and Normal Action," Archives of Neurology and Psychiatry, April, 1929.
- Sands, Irving J.: "The Acute Psychiatric Type of Epidemic Encephalitis," American Journal of Psychiatry, May, 1928.
 - "Nervous and Mental Diseases for Nurses." Published by W. B. Saunders Company, October, 1928.
 - "Aneurysms of the Cerebral Vessels," Archives of Neurology and Psychiatry, January, 1929.
 - "Amaurosis in Epidemic Encephalitis," Journal of the American Medical Association, April 13, 1929.
- Schwartz, Charles W.: "You and I and the X-Ray," Hygeia, May, 1929. Steinberg, Miguel: "Medicine and Music." Republished in the Journal of the Medical Society of New Jersey, 1929, Vol. 26, pp. 242-45.
 - "Progressive Muscular Dystrophy," Journal of Bone and Joint Surgery. (In press.)
- Stookey, Byron H.: "Meralgia Paraesthetica, Etiology and Surgical Treatment," Journal of the American Medical Association, May 26, 1928.
 - "Compression of the Spinal Cord Due to Ventral Extradural Cervical Chondroma," Archives of Neurology and Psychiatry, August, 1928.
 - "Glossopharyngeal Neuralgia, Surgical Treatment with Remarks on the Distribution of the Glossopharyngeal Nerve," *Archives of Neurology* and Psychiatry, October, 1928.
 - "Tumors of the Spinal Cord in Childhood," American Journal of Diseases of Children, December, 1928.
 - "Further Light on the Transmission of Pain and Temperature within the Spinal Cord: Human Cordotomy to Abolish Pain Sense without Destroying Temperature Sense," *Journal of Nervous and Mental Disease*, May, 1929.
- Strong, Oliver S.: "Unsolved Problems Suggested by Cerebellar Connections and Cerebellar Histology," *Archives of Neurology and Psychiatry*, 1928, Vol. 19, pp. 1-30.
 - "The Chemical Room, Its Past and Present," The Collecting Net, 1928.
 - "The Cerebellum, an Investigation of Recent Advances," *Proceedings* of the Association for Research in Nervous and Mental Disease, published by The Williams and Watkins Company, 1929.
- Tilney, Frederick: "The Brain from Ape to Man." (2 volumes.) Published by Paul B. Hoeber, New York, 1928.
 - "The Pineal Gland," in Cowdry's Special Cytology, 1928, pp. 503-48.
 - "Aging of the Human Brain," Bulletin of the New York Academy of Medicine, 1928, Vol. 4, pp. 1125-43.
 - "The Master of Destiny. A Biography of the Brain." Published by Doubleday, Doran Company, New York, 1928.

- "Analysis of Helen Keller and Laura Bridgman," Eugenical News, December, 1928, pp. 156-62.
- "The Mind of Helen Keller," Personality, 1929.
- "A Comparative Sensory Analysis of Helen Keller and Laura Bridgman. The Mechanisms of the Sensorium," *Archives of Neurology and Psychiatry*, June, 1929.
- "A Comparative Sensory Analysis of Helen Keller and Laura Bridgman. Its Bearing on the Further Development of the Human Brain," Archives of Neurology and Psychiatry, June, 1929.
- Timme, Walter: "Mongolism, Its Treatment," Proceedings of 52nd Annual Session of the American Association for Study of the Feeble-minded, 1928.
 - "Pluriglandular Syndrome, Involving Calcium Deficiency and Correlated with Behavior Disturbances," Archives of Neurology and Psychiatry, February, 1929.
 - "Disturbances of the Internal Glandular System in Various Neurological Conditions," Journal of the Southern Medical Association, May, 1929.
- Wechsler, I.S., Brock, S. and Weil, A.: "Amyotrophic Lateral Sclerosis with Objective and Subjective (Neuritic) Sensory Disturbances. A Clinical and Pathological Report," Archives of Neurology and Psychiatry, February, 1929.
 - "The Neuroses." Published by W. B. Saunders Company, Philadelphia, 1929.
- Wechsler, I. S. and Gross, Harry: "Tumors of the Brain Simulating Vascular and Other Degenerative Lesions," *Medical Journal and Record*. (In press.)
- Weingrow, Samuel M. and Patterson, H. A.: "Coagulation and Bleeding Time in Epilepsy," *The Psychiatric Quarterly*, 1928, Vol. 2, pp. 322-32.
 - "Some Observations in Connection with Epilepsy and Some of the Diseases of Childhood," New York State Journal of Medicine, 1928, Vol. 28, pp. 1106-11.
 - "The Brain—Liver Weight Ratio in Epilepsy," Archives of Neurology and Psychiatry, 1928, Vol. 20, pp. 804-11.
 - "The Weight of the Pancreas and the Ratio of the Weight of the Brain to That of the Pancreas in Epilepsy," Archives of Neurology and Psychiatry, 1929, Vol. 21, pp. 179-90.
 - "Some Observations on the Leucocyte Count in Epilepsy," Archives of Neurology and Psychiatry, 1929, Vol. 21, pp. 412-17.
 - "The Relation of the Total Brain Weight to That of Some of Its Component Parts in Epileptic Patients," Archives of Neurology and Psychiatry, 1929, Vol. 21, pp. 648-57.
 - "Hepatic Percussion Zones in Essential Epilepsy," Journal of Nervous and Mental Disease, 1929, Vol. 70, pp. 51-53.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Since the last report the Sloane Hospital for Women has moved to the Medical Center. Many readjustments have had to be made and work of a purely scientific and research nature has had to be subordinated to the more pressing needs of organization. The incorporation of an obstetrical and gynecological hospital with a general hospital has immense advantages from the points of view of the treatment of patients, the teaching of students, and the prosecution of research. The amount of clinical material for teaching is considerably larger than it was at the old Sloane Hospital and the students have reaped a corresponding advantage. The comfortable dormitory quarters provided for them in the Hospital and a rearrangement of their time-table has enabled them to do more practical work in the delivery rooms. The plan of the Vanderbilt Clinic with its series of examining rooms makes for better instruction in antenatal care and in gynecological diagnosis. The students are fully alive to these benefits and have taken full advantage of their increased opportunities. It is very strongly felt that more intensive and more practical instruction in obstetrics in the medical schools will be a big factor in reducing the present high maternal mortality in this country.

Research

- Dr. W. E. Caldwell with the assistance of Dr. E. S. Coler and Dr. W. E. Studdiford has made a study of breech deliveries. The results found will be published soon.
- Dr. C. E. Caverly has completed a review of cases of ovarian tumor complicating pregnancy.
- Dr. J. A. Corscaden and Dr. E. S. Coler are engaged in a study of the results of radium and X-ray treatment in cases of cancer and of uterine hemorrhage due to non-cancerous conditions.
- Dr. W. W. Herrick and Dr. Jean Corwin are continuing their study of the anæmias of pregnancy.

Bibliography

- Caldwell, W. E.: "A Review of Breech Deliveries over a Six-Years' Period." (Ready for the press.)
- Coler, E. S.: "The Importance of the Pathologist to the Clinician in Obstetrics." (Ready for the press.)
 - "Notes on the Preparation of Glucose Solutions in Intravenous Injections." (Ready for the press.)
- Corscaden, J. A.: "Sarcoma of the Uterus," American Journal of Roentgenology and Radium Therapy, 1928, Vol. 21, No. 2, pp. 155-67.
- Corwin, Jean: "Review of the Medical Complications of Pregnancy,"
 Nelson's Loose-Leaf Living Medicine. (In press.)

Findley, W. M.: "An Improved Type of Pessary." (In press.)
Halsted, Harbeck: "Primary Carcinoma of the Fallopian Tube." (Ready for the press.)

Herrick, W. W.: "Milroy's Disease," Nelson's Loose-Leaf Living Medicine. Kurzrok, Raphael: "The Combination of a Short Menstrual Cycle and Delayed Coitus as a Factor in Sterility," American Journal of Obstetrics and Gynecology, 1928, Vol. 15, No. 4, pp. 546-48.

Studdiford, W. E.: "Spinal Anesthesia in the Treatment of Paralytic Ileus," Surgery, Gynecology and Obstetrics, 1928, Vol. 47, pp. 863-65.

Watson, Benjamin P.: "An Outbreak of Puerperal Sepsis in New York City," American Journal of Obstetrics and Gynecology, 1928, Vol. 16, No. 2, pp. 157-80.

"Postpartum Pelvic Infections," American Journal of Obstetrics and Gynecology, 1928, Vol. 16, No. 4, pp. 536-46.

"Menopausal and Postmenopausal Conditions in Women," Bulletin of the New York Academy of Medicine, 1929, Vol. 5, pp. 25-38.

DEPARTMENT OF OPHTHALMOLOGY

Undergraduate instruction has been given to members of both third- and fourth-year classes. The students have examined patients with extraocular pathological conditions about the eyes, also those with intraocular lesions. The use of the ophthalmoscope has been practiced in the clinic and in the wards under the guidance of instructors in the eye department. Especial attention has been paid to eye manifestations of diseased conditions originating outside the eye. The instructors have been somewhat hampered in their teaching because the new eye department of Presbyterian Hospital has had no adequate provision for housing eye patients, but another year eye wards will be open and patients can be studied properly by instructors and students. All the members of the teaching staff are new in their positions and coördination inside the Department has been imperfect, and coördination of the work of the eye department with that of other departments has been rudimentary. Another year students will gain by the vigor of a growing department and by a better mechanism after necessary adjustments.

The members of the eye department have taken some responsibility in teaching outside the walls of Columbia University. Dr. Wheeler conducted the graduate course in ophthalmology at the University of Washington in Seattle, and demonstrated several eye operations at hospitals there. He dealt with various phases of eye surgery at the Gill Memorial Eye Hospital in Roanoke, Virginia, during the postgraduate course there. Dr. Knapp, Dr. Dunnington and Dr. Wheeler took part in the instructional program of the American Academy of Ophthalmology and Oto-Laryngology carried on in St. Louis in connection with the fall meeting of the Academy.

Research

A special research fund has been established through the generosity of an anonymous donor. An investigation is being conducted into the matter of the possibility of the prevention or arrest of cataract by Dr. Daniel B. Kirby. At the present time, the work is concerned with the study of the development and nutrition of the crystalline lens as a basis for clinical research. In the laboratory, the epithelial cells of the crystalline lens are being cultivated *in vitro* and experiments are being conducted to learn the reactions of the living lens cells to various organic and inorganic compounds.

Clinical investigations into the natural history of untreated cataract are planned so that the many variables in this condition may be known and understood. Work which has been started on the action of a lens extract preparation and parathyroid extract in cases of cataract will be continued.

Dr. Ellis, DuBois Fellow for the Department, visited the eye clinics of Paris, Vienna, Edinburgh, and London. His work had largely to do with the embryological development of the eye and its relationship to congenital defects of that organ. He will continue his investigations along these lines both clinically and experimentally, working in conjunction with the Department of Embryology. This investigation will have to do with the embryonic factors entering into the formation of intraocular tumors.

Dr. Johnson has started investigations of eye changes in expanding lesions of the brain. He is working in coöperation with the staff at Neurological Institute, and is directing attention particularly to nystagmus, ocular muscle manifestations, pupil changes, perimetry and fundus changes.

Bibliography

Dunnington, John H.: "Tenotomy Inferior Oblique." (In press.)

Ellis, Zenas H.: "Non-operative Treatment of Cataract with Report on Lens Antigen Treatment," *Archives of Ophthalmology*, 1928, Vol. 57, No. 1.

Kirby, Daniel B.: "A Study of Standards for Judging of the Progress or Arrest of Cataract. A Report on the Treatment of 80 Cases of Cataract by Ionization," Transactions of the American Academy of Ophthalmology and Oto-Laryngology, 1927.

Knapp, Arnold: "Glaucoma in Generalized Vascular Naevus of the Skin. Report of Case with Angiomatous Changes in the Iris," Archives of Ophthalmology, Vol. 57, May, 1928.

Wheeler, John M.: Eye Conditions That Concern the Practitioner, *Journal* of the Florida Medical Association, 1928, February.

"Pulsating Exophthalmos," Atlantic Medical Journal, August, 1928.

DEPARTMENT OF OTO-LARYNGOLOGY

With the removal of the Medical School, the Presbyterian Hospital and the Vanderbilt Clinic to the new site at the Medical Center, the Department of Oto-Laryngology finds itself for the first time functioning on a satisfactory basis.

At the Vanderbilt Clinic there are excellent facilities for examining and treating patients and also abundant material for instructing the undergraduate students of the Medical School in the technique of this special department. The numbers of patients seeking relief have been so great that it has been necessary for the past seven months to limit the number of new patients cared for. For the twelve months from April, 1928, the Department has treated 13,300 cases, an increase of 5,397 over the number treated the previous year. There were 4,986 new cases, an increase of 2,980.

One hundred thirty-five patients received the advantage of the emergency ward service. Fifty-three of these patients were operated upon under local anesthesia. The operations consisted of the removal of tonsils and adenoids.

Nine hundred sixty-two operations were performed under local anesthesia.

The hospital service consists of 19 ward beds and two semi-private rooms. At first two internes were all that were required to care for this service, but in March when the beds were all filled, and mostly with major surgical conditions, a third interne was granted—a very necessary addition to the staff. The total number of operations performed in the first year to May 1, 1929 was 1,200. In connection with the ward work, the Department has been called upon for consultation on patients in other wards averaging six per day. The Department wishes to acknowledge its appreciation of the help that has been given by the several services at the Presbyterian Hospital when consultations have been asked for. These consultations have been of great help alike to the visiting staff, interne staff and the patients.

Acknowledgment is hereby made of the debt to the medical service, the surgical service, the pediatric service, the ophthalmological service and the neurological service, although the other services, though less frequently called upon, have always responded promptly. The very great advantage of having a special service in a general hospital and the aid of associated laboratories of a medical school has been brought home during the past year more forcibly than ever.

Through the generosity of a friend of the service it has been possible to employ a secretary to materially lessen the clerical work of history taking both in the wards and in the Vanderbilt Clinic.

A fund is needed for research work and it is hoped that the beginning of the next college session will see the start of this fund.

Bibliography

Babcock, James W.: "Recurrent Polypi of Maxillary Sinus in a Boy of Eight Years." Paper read before the New York Academy of Medicine, March 27, 1928.

"A Case of Laryngectomy." Paper read before the New York Academy of Medicine, December 25, 1928.

"Report of a Case of Mucocele of the Ethmoid Sinus with Orbital Symptoms." Paper read before the New York Academy of Medicine, January 21, 1929.

Brighton, George Renfrew: "Report of a Case, Mega-Esophagus." Paper read before the New York Academy of Medicine, March 27, 1929.

Coakley, Cornelius G.: "Proper Procedure for Diagnosing Para-nasal Sinus Infections." Paper read before the postgraduate class of Gill Memorial Eye, Ear and Throat Hospital, Roanoke, Virginia, April 9, 1928.

Revision of textbook, "Diseases of Nose and Throat." Lea and Febiger, Philadelphia, Pa.

Kernan, John D. and Eggers, Carl: "Acute Pulmonary Suppuration (Selective Action of Artificial Pneumothorax in the Treatment of this Disease)."

"Abscess of Lung Relieved by Bronchoscopy. Report of Cases." Archives of Surgery, 1928, Vol. 16, Pt. 2, pp. 215-23.

Kernan, John D. and Cracovaner, Arthur J.: "Carcinoma of the Lung."

DEPARTMENT OF PATHOLOGY

There have been no resignations among the older members of the staff. Drs. Paige and Zucker have been promoted, the former, to the position of Associate and Resident Pathologist to the Presbyterian Hospital; the latter, to the rank of Assistant Professor. Dr. Kesten, upon his return from a year's study abroad under a Bayard Cutting Fellowship, was made an Associate in the Department, and Assistant Visiting Pathologist to the Presbyterian Hospital. Drs. Mott and Mazet have been serving as Instructors. Dr. Thompson was assigned by the Department of Medicine to act as liaison officer between the departments, and has taken an active part in the teaching.

Dr. Mazet's service ends on July first, and the staff will be enlarged by five additional instructors, namely, James S. P. Beck from the University of Alabama; Enrique Koppisch, from the School of Tropical Medicine, San Juan, Porto Rico; Sydney A. Gladstone, Johns Hopkins Hospital; Dorothy Andersen, who is studying in Italy; and Sigmund L. Wilens from the Yale Medical School.

Owing to the rearrangement of the dental curriculum, the course in pathology offered to dental students was omitted for the current year. The general course in pathology was not fundamentally changed. The

proximity of the Presbyterian Hospital material and the accessibility of the autopsy room to the students proved of the greatest advantage. In conformance with the new curriculum, the course was extended over two trimesters; the total number of hours was unchanged.

An effort was made to promote a closer personal relationship between the students and teaching staff by assigning to each instructor a small group of students. This approach to tutorial relationship proved on the whole a successful innovation.

While the percentage of autopsies to deaths has not increased, there has been the expected rise in the total number of autopsies performed. During 1928, there were 392 deaths and 151 necropsies, an increase of almost 31 per cent over the preceding year, and at the present rate, it seems certain that during 1929 approximately 300 autopsies will have been performed, exclusive of those done in the Babies' Hospital and Sloane Maternity Hospital. This increase in the routine work will necessitate an enlargement of the staff if the present standards are to be maintained.

The work of the gynecological and obstetrical laboratory has been carried on by Dr. Radford Brown under the supervision of Drs. E. S. Coler and W. E. Studdiford, Jr. The senior-year course in gynecological and obstetrical pathology has been given by Drs. E. S. Coler and W. E. Studdiford, Jr.

Bimonthly pathological reports on all interesting cases, both gynecological and obstetrical, have been given at the meetings of the Sloane Hospital staff. Wherever possible these reports have been illustrated by lantern slides and gross specimens.

The total number of infant deaths for the year were 117. Of these, 44 were stillbirths and 73, deaths after viability. Of these, 65 were autopsied (56 per cent). There were 15 adult deaths, of which 4 were autopsied (27 per cent). The number of gynecological specimens submitted for diagnosis was 640, showing an increase over last year. The total number of placentae examined was 153. During the period of moving from the old hospital to the Medical Center the hospital was closed to admissions for about two weeks, and the admissions after opening at the new Center were somewhat decreased for the first two or three weeks.

Research

Dr. Berg in collaboration with Professors Jobling and Zucker has made further studies of the factors involved in the occurrence of duodenal and gastric ulcers in animals with bile fistulæ, and the relationship of impaired gall bladder and liver function to ulcer formation. They are investigating also the changes in the inorganic constituents of the blood in animals with pancreatic and biliary fistulæ. The secretory pressures of pancreas and liver are being studied with reference to the effect of variations in pressure on the development of acute pancreatitis. Chronic pancreatitis has been produced by the injection of lipiodol into the pancreas.

Studies are being made of the anatomical relationship between the duodenum and stomach and of the anastomoses between the lymphatics in the region of the pylorus of the stomach.

In collaboration with Dr. Hess, the effect of vagotomy and splanchnectomy upon the calcium level and tetany are being studied in thyroparathyroidectomized animals.

During the past year, Dr. Pappenheimer continued his experimental study of neurolymphomatosis of fowls—two papers summarizing his work on this subject appearing in the *Journal of Experimental Medicine*, January, 1929. In collaboration with a graduate student, Miss M. Shahane, he has been studying the effect of removal of the thymus gland upon the calcium and inorganic phosphate of the blood.

During the period from January 14 to March 28, 1929, Dr. Pappenheimer assumed charge of the pathological services at the School of Tropical Medicine, San Juan, Porto Rico. During his visit, 40 autopsies were performed by him and his associates, Drs. Alice Burke and Enrique Koppisch; clinical pathological conferences were held at the School, and a graduate course to six students given three times weekly. Dr. Kesten has been delegated to take over the service until the appointment of a pathologist to take permanent charge of this interesting and important service shall have been made.

Dr. von Glahn has continued his collaborative work with Professor Flinn of the Department of Physiology, on the toxicity of copper, especially its relation to pigmentary cirrhosis of the liver. They have investigated the nature of pigment appearing in animals on a diet rich in carotin, and these studies have, as heretofore, failed to confirm the theory that such pigment deposition in the liver is related to chronic copper poisoning.

Dr. Paige has been collaborating with Dr. Robert Loeb in a study of the effect of small and massive doses of insulin on the adrenals of rats.

Dr. Richter is engaged in an extensive experimental study of mouse leukemia. This work is being carried on in collaboration with Dr. E. C. MacDowell of the Carnegie Institution, Washington, who is interested particularly in the genetic phase of the problem. The investigation is being supported by grants from the Research Fund of Columbia University, and the Carnegie Institution of Washington.

They are working with a strain of mice in which leukemia occurs spontaneously with great frequency and they have succeeded in transmitting the disease experimentally to young normal mice of the same strain. A preliminary report was presented before the February meeting of the Society for Experimental Biology and Medicine.

Dr. Kesten has continued the studies of saponin hemolysis begun at the University of Breslau during the previous year. When the hemolysis of single isolated erythrocytes was observed, the greatest number of cells was found to hemolyze during the earlier time intervals after addition of saponin, with a progressive diminution as time increased. This is different from the usual sigmoid hemolysistime curve and is definitely against the commonly accepted probability distribution of cell resistance to saponin. The hemolysis curve is more probably an expression of a fortuitous reaction on identical erythrocytes.

Dr. Sittenfield has continued his experiments upon the "filterability" of the mammalian tumors. He has also, by the use of tissue cultures, attempted to obtain evidence bearing upon the existence of the so-called mitogenetic rays described by Gurwitsch and his co-workers. The experiments are still in progress up to the present time, no definite evidence has been obtained with the methods employed.

Dr. Zucker, with the collaboration of Mrs. M. Newburger and Miss K. Demarest, has had as his main problem the biochemistry of the gastro-intestinal tract. Their studies are concerned with: (1) The effect of gastric activity on blood electrolytes; particularly as measured by the response of the alveolar carbon dioxide. The clinical application of their work lies in the possibility of using the carbon dioxide as a measure of gastric activity. (2) In association with Dr. Berg, they have investigated the effect of the pancreatic and biliary secretion in dogs with fistulæ upon the electrolytes of the blood. (3) They have been determining the reducing potential of the bile and pancreatic juices. (4) Assisted by Mr. A. E. Margulies, a fourth-year student, Dr. Zucker has completed a study of the production of hemosiderosis by the injection of inorganic iron.

Under Dr. Zucker's direction, Dr. E. P. Fowler, and his son, E. P. Fowler, Jr., a third-year student, have been investigating the possible relationship between rickets and otosclerosis in rats. The middle ears, ossicles and nasal sinuses of rats are being studied after short, prolonged and intermittent feeding of deficiency diets. It has been found that the hearing of rats as tested by their ability to answer a sound produced by an oscillator calibrated to various frequencies is correlated with the conditions found upon anatomical and histological examination.

Dr. Hess and his assistants have continued their study of irradiated ergosterol, the specific antirachitic substance which Dr. Hess, in collaboration with Professor Windhaus of Goettinger, discovered about three years ago. The remarkable potency of this substance has been demonstrated both in the clinic and the laboratory; excessive doses are followed by hypercalcemia.

An investigation was carried out to ascertain whether the varying susceptibility of infants to rickets can be attributed to differences in the store of antirachitic substance which they bring with them into the world. The content of the liver and other organs of newborn infants in antirachitic substance was found to be approximately constant. Therefore, individual predisposition cannot be attributed to variability in this factor. Premature babies, which are notably susceptible to rickets, were found to contain quite as much of the antirachitic substance as those born at full term.

With Dr. C. E. Bills, research chemist with Mead Johnson and Com-

pany, Dr. Hess carried out an investigation of the antirachitic potency of the liver of the codfish, especially in regard to the relationship between the amount of antirachitic factor and the volume of oil in the liver. It was found, contrary to current opinion, that the antirachitic potency varies inversely, rather than directly, with the amount of oil in the liver. From extremely "poor" livers, oil was extracted which was two hundred times more potent than high-grade cod-liver oil and far more potent than any oil heretofore assayed.

Dr. Hess and his assistants are now studying the mode of action of the irradiated ergosterol in the body, especially its relationship to the para-

thyroid glands.

During the past year, Mrs. Parker has been investigating the poisonous properties of certain anaërobically produced autolysates of pneumococci (types I, II and III). These autolysates were found to contain two new toxic substances; the first producing necrosis when injected intradermally, and the second, marked lung lesions and death when injected intratracheally into small guinea pigs.

Extensive pneumonia associated with unrestrained multiplications of the organism was produced in guinea pigs by the intratracheal injection

of sublethal doses of living pneumococci and toxic autolysates.

The lung-toxic poison (pneumotoxin) was found to be neutralized in vitro in high dilution (1–4000 to 1–8000) by the sera of horses immunized thereto; this neutralizing action was found to be species and not type specific. The anti-pneumotoxin sera when injected intraperitoneally 18 hours previous to the intratracheal injection of living pneumococci and pneumotoxin, protected against the subsequent development of pneumonia in these treated guinea pigs.

Mrs. Parker is now investigating the protective effect of a combination of anti-pneumotoxin and pneumococcus specific protective bodies in the treatment of pneumococcus pneumonia in guinea pigs, produced by the intratracheal injection of pneumococci and toxic autolysates. She has also attempted to produce pneumococcus pneumonia in guinea pigs without

the agency of the pneumotoxin.

Bibliography

Brown, Radford: "Tuberculosis of the Uterus without Endometrial Involvement." (In preparation.)

Flinn, Frederick B. and von Glahn, William C.: "A Chemical and Pathologic Study of the Effects of Copper on the Liver," *Journal of Experimental Medicine*, 1929, Vol. 49, pp. 5-20.

Kesten, H. D. and Zucker, T. F.: "The Determination of Rate of Hemolysis by the Measurement of Light Transmission," *American Journal of Physics*, Vol. 87, No. 2, December, 1928.

- "A Study of Saponin Hemolysis of Normal Human Blood with Some Observations on Anemia Blood," *American Journal of Physics*, Vol. 87, No. 2, December, 1928.
- Pappenheimer, Alwin W., Dunn, Leslie C. and Cone, W. Vernon: "Studies on Fowl Paralysis (Neurolymphomatosis Gallinarum). I. Clinical Features and Pathology," *Journal of Experimental Medicine*, 1929, Vol. 49, No. 1, pp. 63–86.
 - "Studies on Fowl Paralysis (Lymphomatosis Gallinarum). II. Transmission Experiments," *Journal of Experimental Medicine*, 1929, Vol. 49, No. 1, pp. 87–102.
- Pappenheimer, Alwin M. and Seidlin, S. M.: "Peculiar Structures in the Myocardium of the Domestic Fowl," *Archives of Pathology*, 1928, Vol. 6, pp. 991-94.
- Parker, Julia T.: "The Production of Skin Necrosis by Certain Autolysates of Pneumonia," Journal of Experimental Medicine, 1928, Vol. 47, p. 531.
- Parker, Julia T. and Pappenheimer, Alwin M.: "Experimental Pneumonia in Guinea Pigs. I. Effect of Certain Toxic Autolysates of Pneumonia," Journal of Experimental Medicine, 1928, Vol. 48, p. 695.
 - "Differentiation between Some Toxic Substances in Anaërobically Produced Autolysates of Pneumococci," *Journal of Experimental Medicine*, 1929, Vol. 49, p. 695.
- Richter, Maurice N. and MacDowell, E. C.: "The Experimental Transmission of Leukemia in Mice," *Proceedings of the Society for Experimental Biology and Medicine*, 1929, Vol. 26, p. 362.
- Sittenfield, Maurice J.: "Biology of Cancer Cells and Their Reaction to Radium," *Radiological Review and Chicago Medical Recorder*, March, 1928.
 - "Radiosensitiveness of Malignant Tissue and Its Biological Significance," *American Journal of Roentgenology and Radium Therapy*, 1928, Vol. 19, No. 2, pp. 150-56.
- Von Glahn, William C. and Pappenheimer, Alwin M.: "Rheumatic Diseases of Auricle and Blood," *Transactions of the Association of American Physicians*, 1928, Vol. 43, pp. 203-12.
- Zucker, T. F. and Kesten, H. D.: "A Study of Saponin Hemolysis of Reticulocyte-containing Blood," American Journal of Physics, 1928, Vol. 86, No. 2.

DEPARTMENT OF PHARMACOLOGY

The members of the staff of the Department of Pharmacology have been engaged in a study of conditioned reflexes; the pharmacology of memory; the pharmacology of potassium; the pharmacology of the intestinal tract; the pharmacology of certain pigments; the pharmacology of some pyridine compound; the pharmacology of synthetics and analeptics.

Bibliography

Hyman, Harold T. and Kessel, Leo: "Some Unusual and Atypical Intrathoracic Conditions," American Journal of Medical Science, 1928, Vol. 175, p. 511.

Mulinos, Michael G.: "Hemorrhage Hyperglucemia," The American Journal of Physiology, 1928, Vol. 86, No. 1.

"Iso-Amyl-Ethyl-Barbituric Acid (Amytal), as a Laboratory Anesthetic for Cats," Journal of Pharmacology and Experimental Therapeutics, 1928, Vol. 34, No. 4.

DEPARTMENT OF PHYSIOLOGY

The student laboratory has been equipped and the teaching schedule maintained. This has required a large share of the time and effort of the Department's mechanician and a considerable amount of supervision on the part of the staff. Dr. Howard in particular has devoted a great deal of time and labor to this work. He has been in responsible charge of the laboratory teaching and arrangements, and deserves great credit for the reorganization of this work in the new building. There has also been some modification of the course, necessitated in part by the change in curriculum and in part indicated by the results of past experience. This year instruction of the students of the School of Dental and Oral Surgery has also been undertaken.

Professor Frederic S. Lee has recently been elected to membership on the Board of Directors of the Desert Sanatorium and Research Institute situated at Tucson, Arizona. In addition to the treatment, "largely by solar radiation," of chronic arthritis, the surgical forms of tuberculosis, asthma, chronic bronchitis, anemia and other pathological conditions, the Institution is now inaugurating a plan for fundamental research into the biological relations of the different forms of radiant energy.

Research

Professor Pike has been engaged in work undertaken with a view to shedding light on the problem of the pathogenesis of convulsions, particularly those of the epileptic type. Much of this work has been done in collaboration with Drs. G. A. Elsberg, W. S. McCulloch, and D. A. Klenke. The work with Drs. Elsberg and McCulloch has been directed toward the problem of localization of the cells of origin of the impulses leading to motor manifestations in epileptic convulsions and the general conditions which affect the susceptibility of these cells to agents which induce convulsive seizures. The work with Dr. Klenke has been directed more toward the problem of how lesions in other parts of the nervous

system may influence the reaction of the cell groups responsible for the convulsions.

Professor Scott has continued work on insulin dosage. This investigation has been in progress since 1923 and he hopes to have it completed for publication during the current year.

In conjunction with Dr. Oscar Riddle, of the Carnegie Laboratory at Cold Spring Harbor, he is just beginning a study of the glycogen content of pigeons under various conditions. A similar, but independent study is being carried out on rats.

With Mr. Clarence A. Horn, Dr. Scott has continued the study of the metabolism of insects. Mr. Horn spent the Winter Session in residence and during this time developed apparatus for measurement of the gaseous metabolism of insect larvae.

Professor Scott and Dr. Zweighaft have been studying the rate of absorption and glucose from the rectum when given in such amounts as is customary in clinical practice. The work is to be continued during the coming year.

Dr. Scott and Miss Caroline Hrubetz are collaborating on the development of apparatus for studying the gaseous metabolism of small mammals, particularly the rat.

Professor Flinn has continued the study of the nature of the liver pigment in carrot-fed rabbits with Dr. von Glahn, Department of Pathology. Work has been carried out to determine the effect of copper on the vitamin C in dairy products.

Professor Flinn and Dr. Ross Smith, Industrial Medicine, have been assisting the New York Department of Labor in a survey of the radium hazard in the state. This work is now completed and the report will soon be published.

Professor Flinn has been acting in advisory capacity to the clock and watch industry to assist them in overcoming the hazards existing in luminous dial painting.

Work on the personal susceptibility to metallic poisoning and acquired immunity is well on the way. Dr. Seidlin is assisting in this work.

Professor Howard has carried on investigations on the possible existence of photoluminescence in hemoglobin and on the fine structure of muscle by means of X-ray diffraction patterns.

Dr. Hopping is continuing a study of cell metabolism in the nucleated erythrocytes of the alligator.

Mr. King has begun a study of the effect of various internal secretions on the refractory phase of the heart.

Dr. Weinstein has begun a study of the effect of ultra-violet light on living cells. He will make precise measurements of intensity and will study the effect of various ranges of frequency.

Dr. Williams has continued the investigations on electric shock. He has also collected data and carried on experiments looking to the formula-

tion of recommendations for minimizing the danger of explosion in connection with the use of ether and ethylene in anæsthesia. This study has been carried on partly at the instance of the Department of Surgery and partly by request of the Council on Physical Therapy of the American Medical Association. He continues to serve as a member of this Council and attended its sessions at Minneapolis last spring as well as those of the American Medical Association. He also attended the spring meeting of the American Physical Society at Washington, D. C. In the autumn of 1928 he delivered a series of five lectures, known as the Priestley Lectures, at the Pennsylvania State College. He also gave before a joint session of the American Physical Society and the Optical Society of America at the February meetings in New York, an invited address which is to be published shortly in Science. On May first he delivered the annual address before the Chapter of Sigma Xi at the University of Virginia. He is serving as an associate editor of the Journal of the Optical Society of America.

The Department has begun the development of a rat colony, the stock for its initiation having been obtained through the courtesy of the Pennsylvania State College. The supervision of this colony has been ably carried out by Miss Hrubetz and it is expected that this colony will shortly furnish a pure strain of rats suitable for our investigations involving these animals.

Bibliography

- Flinn, Frederick B., Schlundt, H. and Barker, H. H.: "The Detection and Estimation of Radium and Mesothorium in Living Persons," *American Journal of Roentgenology and Radium Therapy*, 1929, Vol. 21. (In press.)
 - "The Blastophoric Effect of Lead on the Germ Cell," Eugenics, 1929, Vol. 2. (In press.)
- Flinn, Frederick B. and von Glahn, W. C.: "A Chemical and Pathologic Study of the Effects of Copper on the Liver," *Journal of Experimental Medicine*, 1929, Vol. 49, No. 1, pp. 5-20.
- Pike, Frank H.: "An Approach to the Problem of Pain Fields, with Special Reference to Those Associated with Disease of the Nose and Throat," The Laryngoscope, 1928, Vol. 38, pp. 219-25.
 - "Some Observations on the Effects of Experimental Hemisection of the Spinal Cord," *American Journal of Physiology*, 1928, Vol. 85, pp. 400-401.
 - "A Further Note on the Difficulties Encountered by Land Vertebrates in Their Development," *Science*, 1928, Vol. 68, pp. 378-79.
- Scott, Ernest L.: "The Reducing Power (Blood Sugar) of Filtrates from the Blood of Rabbits," Archives of Internal Medicine, 1929, Vol. 43, pp. 393-412.

DEPARTMENT OF THE PRACTICE OF MEDICINE

The past year will be long remembered as the one in which the old hospital was deserted and the Medical Center occupied. Department has looked forward with considerable concern and uncertainty to the year when this transition should take place. The most serious difficulty was encountered in the teaching of the medical students. This year has been fraught with many new and difficult problems but the essential requirements of the teaching have been met. One very heavy load which has been carried has been the teaching of both third- and fourthyear students in the wards due to the fact that ultimately it is planned to carry on the clinical instruction of the third-year men in the wards and the fourth-year clerkships will be conducted partly in the dispensary and partly in the wards. Therefore we have been confronted by unusual and trying tasks during this transitional period. Furthermore, the curriculum for this year has added to our labors rather than diminished them. third-year students have been with the Department so short a time and their work has been so interrupted that the instruction has been entirely unsatisfactory. Dr. Norrie, of Bellevue, is even more emphatic in his criticism of the plan this year. The fourth-year teaching has been handicapped by restricted material at the Presbyterian Hospital and interrupted through short hours at Bellevue. For the first time in the last eight years there has not been an opportunity for instructors to become familiar with the work of individual students. We are looking forward to better conditions next year. The change of the third-year men from the dispensary to the wards and vice versa for the fourth year will have been made. There has been a rearrangement of the curriculum so that the Department now is able to plan their instruction on the block system. This should be of great help. Furthermore, time is allotted in the new schedule for electives and it will be possible to have the students go to Bellevue in their elective period for continuous uninterrupted study of the unusual material available there.

The clinical material has been a happy surprise during the past year. Not only has it been ample but it has been of an extraordinary interest, far better than anything at the old Presbyterian Hospital. The Vanderbilt Clinic has been swamped with applicants and although there are from eighteen to twenty-four doctors on duty daily many cases must be turned away since the principle of accepting only the number of cases that can be well looked after has been adopted. Both space and working facilities in the dispensary and wards have proved most satisfactory and there is a general agreement that the plan adopted is workable and desirable.

The laboratories in the School building are already crowded for space. It has been a frequent observation of visitors that both the hospital and laboratories have the appearance of being occupied for some years and do not give evidence of any disorganization or newness. Lack of animal space is a great handicap, a subject which has been frequently before the Administration Committee this year.

There have been a few important changes in the staff. Through the kindness of Mr. Harkness in a gift to the hospital it has been possible to add Dr. Michael Heidelberger and Dr. Forrest E. Kendall to the medical staff for the purposes of research and chemical problems connected with the work of the clinic. Through a gift from the Rockefeller Foundation. Dr. Francis W. O'Connor has been added to the staff to take charge of tropical disease, both in the wards and to carry on investigation in this field. Dr. Ralph H. Boots has organized an arthritis clinic and this spring Dr. Martin Henry Dawson has been added through the generosity of Mrs. E. E. Falconer. Dr. Dawson will spend his entire time in research in this field. Through a generous contribution to the special tuberculosis fund at Columbia, Dr. J. Burns Amberson, Jr. has been secured to serve as visiting physician and to establish a research laboratory in connection with the tuberculosis service at Bellevue under Dr. Miller's supervision. Dr. Amberson's presence on the staff should be of great help in making clinical material more interesting and also aid in the instruction of students. Dr. Harry L. Shapiro, who is the physical anthropologist of the American Museum of Natural History, has been made consultant of anthropology to the Department of the Practice of Medicine. His work will be in connection with the constitution clinic.

In addition to these appointments there have been other changes. In the Presbyterian Hospital, Dr. Kasabach has been appointed X-ray Instructor and Drs. Gutman, Kneeland, Turner and Wilson, Assistants in Medicine. Drs. Bernat, Bruné, Pick and Scharf have been added to the Vanderbilt Clinic as Assistants in Medicine. Drs. Lawton, Koffler and Shaine have resigned from the Vanderbilt Clinic and Drs. Lincoln and Kraetzer, from Bellevue.

Research

The activity of the Department in the various problems under investigation may be summarized in the following paragraphs.

Drs. Dochez and Shibley and Miss Mills have been investigating the upper respiratory bacteriology of the ape in health and disease to determine whether or not the organisms are similar to those found in man. Apparently this proves to be the case. They have been able to communicate to the ape upper respiratory infections (the common cold) by injecting into the nasal passages filtered nasal washings from human individuals suffering from colds.

Dr. Badger has been studying the bacteriology of the paranasal sinuses in health and disease. At present, organisms seem to be present both with symptoms and without and are apparently similar to the organisms found in the nose and throat in health and disease.

Dr. Kneeland has been investigating the bacteriology of the respiratory tract in infants. He finds the tract is sterile for the first twenty-four hours when streptococci appear but there may be no clinical symptoms of

disturbance. He has also found that pathogenic organisms present during colds in infants are the same as are found in adults.

Dr. Hanger's study of natural allergy among rabbits has revealed that many animals with chronic respiratory disease react strongly to antigens prepared from the gram negative bacterial flora of the nasopharynx. In the allergic animal, the reticuloendothelial system of the skin has been found to show an increased phagocytic activity for collodial matter following non-specific stimulation. The relationship of this phenomenon to local immunity is under investigation. The effect of bacterial antigens on focal and general reactions in the allergic and non-allergic animal is also being studied.

A study of the protein fractions of a variety of bacteria (streptococci, staphlacocci and influenzæ) have been studied by Dr. Stevens in relation to the allergic manifestations encountered in asthma, rheumatic fever and arthritis. This work is being carried on in close association with the chemical studies of Dr. Heidelberger.

Dr. Coburn has under observation a hundred families in which there are one or more cases of rheumatic fever. He hopes to study the natural history of the disease in these subjects. A small group of patients ill with rheumatic fever have been installed in Porto Rico near the School of Tropical Medicine.

Dr. O'Connor and Mrs. Hulse have isolated a fungus from fluids obtained from, first, a pancreatic multilocular cyst, second, a multilocular cyst of the liver, and third, a pleural effusion. This fungus seems to belong to the saccharomyces. They have been able to study a case of dientamæba fragilis which is frequently complicated with E. Hystolitica and by some believed to be pathogenic. They have spent several months in Porto Rico studying the filaria problem and have been able to demonstrate the complete filaria cycle from man to man in the West Indies. They have also succeeded in keeping alive in culture the micro filaria for twenty-five days. This is nearly three times as long as any other recorded culture. They have in this culture been able to observe the early changes which occur in the mosquito. Furthermore, while in the West Indies they were able to make certain epidemiological studies concerning filaria and found that 75 per cent of the infected individuals on the island are laundry workers or live in families where there are laundresses. Dr. O'Connor thinks this is important in view of the life of the mosquito because the houses of the laundry workers are very high in humidity due to storage of damp clothes.

Drs. Boots and Dawson are searching for the etiological agent in chronic infectious arthritis. Their work is only started and no definite results can be reported at this time.

Drs. Heidelberger and Kendall are continuing work in the chemistry of immunity. Their problem is a difficult one and results are slow in arriving. The plan is to study chemically the several protein fractions of the scarlet fever streptococcus in hopes that some light may be thrown on the clinical features of this disease.

Dr. Palmer with the aid of Miss Brown has continued the studies in creatin-creatinin metabolism in hyperthyroidism by feeding creatin to cases with Graves disease. After iodine administration and after operation there is a very striking decrease in the amount of creatin thus excreted.

Dr. Sloan and Miss Benedict are continuing investigation of the phosphocreatin compound in normal and hyperthyroid conditions. The results are still uncertain.

Dr. Lloyd has been making special pathological studies of the thyroid gland.

Dr. Atchley and Miss Benedict have carried forward their studies in acid base balance in nephritis of the nitrogen retention type. They find a large increase in the phosphates and sulphates but no acctone and are able to account for the base and acid as well as in normals. This is contrary to observations made in other laboratories.

Dr. Loeb and Miss Nichols have shown that in well-fed rabbits small doses of insulin have a greater blood sugar depressing effect than do huge doses. Their results have important clinical bearing in view of the fact that large doses of insulin used in cases of coma have not had a striking clinical effect and in certain instances seem to be toxic.

Dr. West has been attempting to isolate the principle in liver extract which is active in producing remissions in pernicious anemia. Up to date it is only possible to say that it is either polypeptid or organic base.

Drs. Richards and Strauss have compared the several methods for determination of mixed venous blood in man. By using both respiratory and blood gas technique, the Field-Bock method of measuring the oxygenated venous tension checks very closely with the more exact but more complicated method of obtaining actual venous tension similar to the Burrel-Robinson technique.

Drs. Levy and Turner are reporting electrocardiograms on three dying human hearts. Dr. Turner has been studying the tone of the diaphragm during dyspnea by a new fleuroscope method. In 90 per cent of the normal cases thus far studied the increase in tone of the diaphragm occurs simultaneously with the development of dyspnea. It is expected to use this method in the study of diseased conditions.

Dr. McAlpin is continuing his work in diseases of the blood. This year an intensive study of the effect of phenyl hydrazine in the treatment of polycythemia is being made.

Dr. Thompson has collected a most interesting group of cases with changes in the blood simulating the leukemias and purpuras but the subsequent course has proved the condition to be only temporary.

Drs. Draper, Murray and staff have been working intensively on methods for the study of the psychological panel in man. At present their studies indicate that the psychological pattern is as different as the anatomical and that a study of this characteristic of the individuals may be of great importance in certain diseased conditions such as gastric ulcer, not only in diagnosis but from the standpoint of adjustment in view to re-

lieving mental strain so undesirable in this disease. Their genetic studies in rheumatic fever are proving to be most striking and interesting. There seems little doubt that there is a distinct hereditary factor in the disease.

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Bibliography

- Barach, Alvan L.: "Factors Involved in the Production of Immunity with Pneumococcus Vaccine. I. Active and Passive Immunity During the First Seven Days after Injection of Antigen," *Journal of Experimental Medicine*, 1928, Vol. 48, No. 1, pp. 83-104.
 - "Rate of Development of Pneumococcus Immunity," *Proceedings of the Society for Experimental Biology and Medicine*, 1928, Vol. 25, pp. 558-60.
- Bauman, Louis: "Obesity. Articles for the Gorga Memorial Institute. Syndicate Health talks on Diabetes and Obesity," Journal of the American Medical Association, 1928, Vol. 90, p. 22.
- Baylis, Adelaide B. and MacNeal, Ward J.: "The Resorcinol Flocculation Test for Activity of Tuberculosis," American Review of Tuberculosis, 1928, Vol. 18, No. 6, pp. 843-49.
- Baylis, Adelaide B. and Robinson, Daisy: "Translation of Work by Arthur Vernes: An Exact Serology Guides the Treatment of Syphilis," Studies and Publications from the Institute Prophylactique, Paris, France, Pamphlet, 5, pp. 1-44.
 - "A Simplified Serological Test for Tuberculosis," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 25, pp. 482–83. "The Vernes Flocculation Test for Tuberculosis," American Review of Tuberculosis, 1928, Vol. 18, No. 4, pp. 513–19.
- Blank, George M. and Crump, Armistead C.: "Radio-Angle Rule,"

 Journal of the American Medical Association, 1928, Vol. 91, pp. 566-67.
- Corwin, Jean: Review of literature on medical complications of pregnancy in Nelson's Loose-Leaf Medicine, 1928.
- Crump, Armistead C.: "Diseases of the Esophagus," Bedside Diagnosis by American Authors, Blumer, 1928, Vol. 1, pp. 650-703.
- Dakin, H. D. and West, Randolph: "A General Reaction of Amino Acids I," Journal of Biological Chemistry, Vol. 77, No. 1, June, 1928.
 "A General Reaction of Amino Acids, II," Journal of Biological Chemistry, Vol. 77, No. 3, August, 1928.
 - "Some Aromatic Derivatives of Substituted Acetylaminoacetones," Journal of Biological Chemistry, Vol. 77, August, 1928.

- Danzer, C. S.: "The Pathogenesis and Treatment of Dyspnea in the Light of Recent Experiments," Annals of Internal Medicine, 1928, Vol. 2, p. 239.
 - "A Compact Instrument for Viewing Stereoscopic X-Ray Photographs," Long Island Medical Journal, 1928, Vol. 22, No. 5.
 - "Fundamental Factors in the Pathogenesis and Treatment of Peptic Ulcer," Southern Medical Journal, 1929, Vol. 22, p. 178.
- Dochez, A. R., Shibley, G. S. and Mills, K. C.: "Studies in the Common Cold. II. A Study of Certain Gram-negative Filter-passing Anaërobes of the Upper Respiratory Tract," Journal of Experimental Medicine, 1928, Vol. 47, No. 2, pp. 193-206.
- Dochez, A. R. and Stevens, Franklin A.: "Die Allergische Theorie der akuten Scharlachfiebersymptome," Verhandlungen des Deutsch Russischen Scharlach Kongresses., Vol. 2, No. 14, June, 1928.
- Draper, George: "Disease, A Psysomatic Reaction," Journal of American Medical Association, 1928, Vol. 90, pp. 1281-85.
 - "Safety First," Scribner's Magazine, January, 1929, p. 42.
 - "The Beaumont Foundation Lectures," Williams and Wilkins, Baltimore. Series, No. 7.
- Golob, Meyer: "Tobacco and Its Abuses," Medical Times, March, 1928.
 "Duodenal Ulcer without Symptoms," New England Journal of Medicine, May 3, 1928.
 - "Lymphosarcoma of the Sigmoid," American Journal of Surgery, May, 1928.
 - "Why Drinking Water with Meals Is Physiologically Wrong," American Medicine, June, 1928.
 - "Duodenal Diverticulum. Discussion of Roentgen-Ray Findings and Report of Two Cases," American Journal of Roentgenology, July, 1928.
 - "Chronic Fatigue Intoxication," Medical Journal and Record, November 21, 1928.
 - "Some Observations on the Meaning of Jaundice," Medical Journal and Record, March, 1929.
- Golden, Ross: "Non-malignant Tumors of the Duodenum," American Journal of Roentgenology and Radium Therapy, 1928, Vol. 20, No. 5, pp. 405-13.
- Golden, Ross and Levy, Robert L.: "The Treatment of Rheumatic Carditis by Roentgen Irradiation of the Heart," *American Heart Journal*, 1928, Vol. 4, No. 2, p. 127.
- Hanger, Franklin M., Jr.: "Effect of Intravenous Bacterial Filtrates on Skin Tests and Local Infections," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 25, pp. 775-77.

- Heidelberger, Michael, Rosenthal, Nathan, Cohn, David J. and Friedman, Joseph S.: "Behavior of the Substance Active in Pernicious Anemia on Dialysis of Liver Extracts," *Journal of Biological Chemistry*, 1928, Vol. 78, p. 66.
- Heidelberger, Michael, Shwartzman, Gregory and Cohn, David J.: "Immunological Relationships of the Typhoid Bacillus," Proceedings of the American Society of Biological Chemists, Journal of Biological Chemistry, 1928, Vol. 78, p. 76.
- Jessup, D. S. D. and Bancroft, F. W.: "Hemorrhagic Cyst of the Spleen; Adenomyoma of Recto Vaginal Septum," Surgical Clinics of North America, 1928, Vol. 8, No. 5, pp. 1015 and 1023.
- Jessup, D. S. D. and Roberts, Kingsley: "Esophageal Stenosis," Surgical Clinics of North America, 1928, Vol. 8, No. 5, p. 1057.
- Kantor, John L. and Jaffin, Abraham: "Roentgen Visualization of the Bile Ducts, with Special Reference to Internal Biliary Fistulae," Radiology, 1929, Vol. 10, pp. 10-15.
- Kantor, John L. and Schechter, Samuel: "Colon Studies, V. The High Cecum," American Journal of Roentgenology and Radium Therapy, Vol. 19, February, 1929, pp. 101-11.
- Levy, Robert L., Bainton, J. H., Munly, W. C. and Pardee, H. E. B.: "Criteria for the Classification and Diagnosis of Heart Disease." Published by P. B. Hoeber, New York City.
- McAlpin, Kenneth R.: "Lymphocytosis," New York State Journal of Medicine, 1928, Vol. 18, pp. 1103-06.
 - "Purpura and Platelets; Some Practical Considerations," New York Journal of Medicine, 1928, Vol. 28, No. 24, pp. 1459-63.
- Miller, J. Alexander: "Climate in the Treatment of Pulmonary Tuberculosis," American Review of Tuberculosis, Vol. 18, No. 5, November, 1928.
- Mufson, Isidor: "The Capillary Pressure in the Toxemias of Pregnancy," American Journal of Obstetrics and Gynecology, 1928, Vol. 15, No. 6, p. 800.
- Murray, Cecil D.: "A Simple Method of Picking up Correlations," Science, 1928, Vol. 67, p. 588.
- Page, I. H., Turner, K. B. and Wilson, J. M.: "The Clinical Significance of Eosinopnilia on a General Medical Service," *Journal of Laboratory* and Clinical Medicine, 1928, Vol. 13, p. 1109.
- Palmer, W. W.: Review of metabolism in Nelson's Loose-Leaf Medicine, 1928, Vol. 3, p. 25.
 - Review of obesity in Nelson's Loose-Leaf Medicine, 1928, Vol. 3, p. 116.
- Richards, D. W., Jr. and Strauss, Marjorie L.: "Circulatory Adjustment in Anemia," *Journal of Clinical Investigation*, Vol. 5, February, 1929, p. 161.

Shaine, Marks S.: "Constipation and Its Treatment," Medical Times, May, 1928.

"Gumma of the Stomach," Medical Journal and Record, July 4, 1928. "In Defense of the Stomach Tube," Medical Journal and Record, March 7, 1929.

Shibley, Gerald S.: "Studies in the Agglutination Prozone," *Proceedings* of the Society for Experimental Biology and Medicine, 1929, Vol. 25, pp. 338-40.

Thompson, W. P.: "The Filterability of the Tubercle Bacillus," American Review of Tuberculosis, 1928, Vol. 18, No. 6.

"Tuberculosis Aneurysm of the Hepatic Artery; Report of a Case," Bulletin of Johns Hopkins Hospital, 1929, Vol. 42, No. 3, p. 113.

Vance, B. M.: "Subcutaneous Injuries of the Abdominal Viscera," *Archives of Surgery*, 1928, Vol. 16, pp. 631-79.

Vogel, Karl: "The Significance of Arsenic in the Excretions," American Journal of Medical Sciences, 1928, Vol. 176, p. 215.

West, Randolph and Nichols, Emily: "Liver Fractions in Pernicious Anemia," Journal of the American Medical Association, 1929, Vol. 91, pp. 867-68.

DEPARTMENT OF PSYCHIATRY

The new curriculum which went into effect in the fall of 1928 provided for instruction in psychiatry during the second, third and fourth years. The increased number of teaching hours allotted to the Department necessitated a complete reorganization of the plan of instruction and this gave for the first time an opportunity to present the subject of psychiatry to the medical student in a systematic and comprehensive manner.

In the past, psychiatry has been too closely identified with the care and treatment of advanced and severe mental disorders and the institutional problems arising in connection with these types. In recent years, however, it has become more and more apparent that the severe psychotic disorders, while important enough by reason of their numbers and economic burden to the community, do not furnish the main psychiatric problems which confront the practicing physician. The extraordinary prevalence of psychiatric disorders, particularly the psychoneuroses, was made evident during the war with the result that the medical and social significance of this group was brought forcibly to both medical and lay attention. While physicians may ignore advanced cases of mental disorder, which unfortunately many continue to refer to as cases of "insanity," there still remain the large group of psychoneuroses, and other functional disorders with their fears, doubts, morbid anxieties, impulsive ideas, emotional disorders, depressions, and abnormal fixation of attention on organs and functions of the body, often leading to chronic invalidism. These affections are too widespread and the sufferers make too insistent demands

for relief to permit physicians to ignore them. In practice, however, their treatment is generally regarded as unsatisfactory and mainly so because physicians, finding no physical cause for the patient's complaints, do little or nothing to investigate the psychic elements involved in the case. One of psychiatry's most important contributions to medical education is to train students to study the whole individual, his psychological reactions as well as his physical complaints and to emphasize the fact that in large groups of patients treatment based on physical measures alone gives poor results or no results. The recognition and management of these so-called functional nervous disorders constitutes a major problem in the everyday practice of medicine. There is great need of a new therapeutic approach based on a better appreciation of the underlying factors in these groups of patients.

Owing to the fact that the new Psychiatric Institute and Hospital was delayed in opening, the Department was somewhat hampered by the lack of space for section teaching and development of the plan of clinical clerkships for the third-year students. However, we were able to carry out our teaching program in a fairly satisfactory manner through use of the facilities and clinical material afforded by the Vanderbilt Clinic supplemented by cases drawn from the wards of the Presbyterian Hospital and other units of the Medical Center. It is a pleasure to acknowledge the fine coöperation received from the other departments with which contacts for teaching and utilization of clinical material have been established. It is gratifying to note the increasing number of psychiatric consultations requested for patients in the medical and surgical wards and other divisions of the hospital.

The staff of the Department of Psychiatry was enlarged during the year by the appointment of three new clinical professors, Doctors R. B. McGraw, L. E. Hinsie and H. W. Potter, and one Associate in Psychiatry, Dr. G. E. Daniels. The number of instructors on the teaching staff now totals 18, all of whom work in the Vanderbilt Out-patient Clinic. There are also in the out-patient clinic two psychiatric social service workers, one psychologist, for psychometric and other special work, a secretary and a clinic aide.

In view of the fact that the plan of instruction in the Psychiatric Department has been entirely recast during the past year, it may be of interest to give, at this time, a brief outline of the work as carried on under the new plan. The revised curriculum allots 145 hours to psychiatry distributed as follows: second year, 10 hours; third year, 105 hours; fourth year, 30 hours.

Instruction begins in the last trimester of the second year with 10 lectures on psychopathology. This is a basic or introductory course in which mental disorder and abnormal behavior are approached from the psychobiological standpoint. The point is stressed that the individual must be studied as an integrated whole, an organism reacting to external stimuli, instincts and emotions, modified by environment and culture, which

result in the establishment of certain patterns of behavior. This is followed by a discussion of the ego, sex and social instincts and the development of the personality Various mental mechanisms which operate in normal and abnormal behavior are described and illustrated. A sketch is given of the disturbances of mental adaptation as seen in the psychoneuroses, the psychoses, in mental deficiency, delinquency, crime and drug addiction. The psychopathology of general illness is discussed and finally a brief outline is given of the foundations of mental hygiene.

During the third year the course begins with 15 lectures, one hour a week for the first semester. These cover the principles of classification and the systematic description of the various types of mental disorder including the borderland and mild mental disturbances, personality deviations, psychoneuroses, psychopathic personality, delinquency, sex perversions, alcohol and drug addictions, epilepsy, mental deficiency and the major psychoses.

Running parallel with this lecture course, during the first semester the students work in the out-patient clinic or on the wards. They rotate through the clinic in groups of 25, each group coming for three mornings a week for a month. Each group is broken up into small sections of three or four students; under the guidance of an instructor they are taught how to take histories and examine psychiatric patients. The last hour of each morning period is devoted to a clinical conference at which the cases examined by the students are presented and discussed.

During the second semester of the third year the students are given further opportunity to work with patients in the clinic or at the bedside; having become familiar with methods of examination and the principles of diagnosis, the students are assigned to work up cases in the out-patient department of the Vanderbilt Clinic or in the wards of the Presbyterian Hospital and the Psychiatric Institute. Each student puts in five mornings a week for a month. Students present the cases which they work up, in clinical conference, for discussion of diagnosis and treatment. are presented with special reference to the psychiatric problems of general practice and the discussions are planned to cover the following topics: emotional and personality factors in the symptomatology of general illness; neurotic elements in functional disorders of the heart, of the gastrointestinal tract, of the genito-urinary and other organs; family situations and economic problems leading to emotional disturbances and behavior disorders; social service in the investigation and treatment of psychiatric cases.

During the latter part of the third year a series of talks and demonstrations are given dealing with problem children. The factors involved in the production of conduct disorders are discussed and individual cases drawn from the Child Guidance Clinic are presented to illustrate the family and environmental influences which operate to produce neurotic, delinquent and psychopathic behavior in children.

During the fourth year the thirty hours devoted to psychiatry are utilized for a weekly lecture clinic of one hour's duration. The student is shown the more pronounced mental disorders as they are encountered in practice and especially in psychiatric hospitals including the different types of psychosis and varying degrees of mental deficiency. The diagnosis and treatment of retarded and defective children receive special consideration. The last part of the fourth-year course is taken up with a consideration of the important medico-legal problems which develop in connection with mental disorders. These include the psychiatric aspects of compensation issues arising in industrial and accident cases; the legal steps involved in the committment of mental patients; the determination of legal competency, of testamentary capacity and of criminal responsibility.

Relatively little provision for postgraduate work in psychiatry exists in this country, although the need for such instruction is widely felt. The unsurpassed clinical and laboratory facilities now existing at the Medical Center afford an opportunity, unique in this country, for the establishment of postgraduate courses. The Department of Psychiatry in conjunction with the Department of Neurology expects to announce at an early date a comprehensive plan for postgraduate work in neuropsychiatry to begin in the fall of 1929.

It is believed that the Department of Psychiatry can be of use to the student body by establishing a consultation service for advice in dealing with personal problems, difficulties in adjustment, and emotional conflicts of various sorts. For serious breaches of conduct and failure to maintain a sufficient grade in class work a psychiatric investigation would undoubtedly prove to be of value to both the student and the administration. It is believed no student should be dropped from college before a psychiatric review of his case is made.

Research

Probably in no branch of medicine is there a greater need for systematic and sustained research work than in psychiatry. Prior to the building of the Medical Center the facilities in this country for research in psychiatry were extremely scanty. The Vanderbilt Clinic and the new Psychiatric Institute offer splendid clinical and laboratory facilities for organizing special studies and investigations in many directions. It is planned to have the Medical School staff work in close coöperation with the staff of the Psychiatric Institute. As soon as the Institute opens a research program will be announced.

Bibliography

Haviland, C. Floyd: "The Social Danger of the Borderline Mental Case." Paper read before the Section of Neurology and Psychiatry of the New York Academy of Medicine, March 7, 1929.

- "Medicine and Race Betterments: Do Their Doctrines Conflict?" Eugenics, June, 1929.
- Hinsie, L. E.: "The Relation of Exogenous Factors to the Onset of General Paralysis," *Psychiatric Quarterly*, 1928, Vol. 2, p. 435.
 - "The Treatment of Schizophrenia. A Survey of the Literature," *Psychiatric Quarterly*, 1929, Vol. 3, pp. 5-39.
 - "The Influence of General Paralysis on the Family," *Psychiatric Quarterly*, 1929, Vol. 3, pp. 90–97.
 - "A Guide to the Psychotherapy of Incipient Schizophrenia." (Ready for publication.)
- Kirby, G. H. and Bunker, H. A., Jr.: "Results of Malarial Therapy in General Paralysis." Read at the annual meeting of the Medical Society of the State of New York, Section on Neurology and Psychiatry, held at Albany, N. Y., May 21-24, 1928.
- Kirby, G. H. and Hinsie, L. E.: "Tryparsamide Treatment of General Paralysis," *Psychiatric Quarterly*, 1929, Vol. 3, pp. 68-76.
- Potter, Howard W.: "Mental Deficiency as a Symptom of Syphilis," Proceedings of the American Association for the Study of the Feeble-minded, 1928, Vol. 33.
 - "Hypophrenias of Syphilitic Origin," *Psychiatric Quarterly*, 1929, Vol. 3, No. 2.

DEPARTMENT OF SURGERY

June 30, 1929, completes the first year of work in the Medical Center with the School and hospital as a combined unit. Of the many problems to be faced in the Surgical Department some have proven much less formidable than had been expected; others, unanticipated, have arisen that have been and continue to be difficult. But in looking back over the year certain definite and encouraging results appear clear cut. The most striking are: (1) The great advantages in a close proximity of School and hospital, in contacts, in teaching and in the increased facilities for investigative work; (2) the very apparent desire of the public to avail themselves of the facilities and services of the clinic and hospital; (3) the astonishingly interesting type of clinical material coming to the Center as compared to that seen in the old hospital; (4) the eager and enthusiastic work and cooperation, with very few exceptions, on the part of those who are engaged in the work of the School and hospital; (5) the desirability of maintaining teaching and clinical contacts with the well-organized units at Bellevue; (6) the need for revision of the curriculum to make use of the clinical facilities for third-year students, as a preparation for more advanced work in the fourth year.

The Surgical Department has suffered two great losses in the resignations of Dr. Ransom S. Hooker from the Bellevue teaching staff and Dr. William

C. Clarke who for twenty-five years has been so unique as a teacher of the fundamentals of surgery in the surgical laboratory. Dr. Hooker, after helping to organize the First Surgical Service at Bellevue before the war, consented to resume his work in that hospital in 1921, and with wise and careful organization as Surgical Director he brought the First Surgical Division back to its former efficiency and established an *esprit de corps* in the group of able and conservative surgeons that has held throughout the past eight years and has made the teaching in the Bellevue service appreciated and sought after by the Medical School students.

Dr. Clarke has completed more than twenty-five years of work in the Department. Beginning as an Instructor in Surgery in 1904, after teaching with Dr. Freeborn in histology, he developed the unique collection of surgical material in the laboratory gathered from many clinics and individuals and evolved a course in the fundamental principles of inflammation, repair and new growth of tissues as encountered in surgery that has for many years remained the best course in the surgical curriculum and one which has always interested the students. His greatest contribution has been creating the desire in the student's mind of knowing the why and wherefore of surgical lesions and their therapy. Peripatetic in his methods of teaching, he focused the interest of the second-year class on lesions requiring surgical therapy, and his hundreds of former students remember him as their friend and adviser. We shall never be able to find a successor so unique in his manner of presenting his subject and so interesting in his personality.

The laboratory with its affiliations with School and hospital presents new responsibilities and new problems. For the teaching of surgical pathology and the principles of injury and repair the Department is most fortunate in having Dr. Stout and Dr. Frantz, both trained under Dr. Clarke and greatly interested in the pathology of surgery. The thorough studies of Dr. Stout in the end results of operation for malignant tumors in relation to site and degree of malignancy have stabilized our ideas very materially and have resulted in a discriminating attitude in the operative treatment of neoplasms. During his sabbatical year abroad Dr. Stout has compiled the results of these studies and will publish them on his return to the laboratory.

With the laboratories of general pathology in direct contact with those of surgery the advantages of closer coöperation and combined effort are apparent to both departments, and Dr. Jobling and Dr. Whipple have outlined definite plans for interdepartmental work. The experience in the diagnosis of fresh and living pathology as seen in the operating room and the study of the lesions that come to the surgical laboratory have been lacking in the training of the workers in general pathology. On the other hand the training in general pathology, especially at the autopsy table, has not been possible for the surgeons in their course in surgical pathology. These defects in both departments will be largely corrected by the inter-

change of workers and material. Dr. Stout and Dr. Frantz are most anxious to coöperate in this effort.

Aside from the large amount of material that is now constantly coming to the laboratory for morphological study and which requires constant effort and supervision in diagnosis and tabulation, there has come with the improved facilities in the laboratory and the additional workers in the Fellows in Surgery the demand for a director of the surgical research that is being and will, in greater measure, be carried on in the laboratory. To fill adequately such a responsible position, the services of a man trained in physiological method and having the critique of scientific observation, with the background of surgical experience and the point of view of surgical therapy, must be secured. Above all else he must be stimulating to the students and assistants and discriminating in his sense of what each individual attempting to carry on a research problem is best qualified to do. In addition he must have ample time to himself, free from the constant annoyances of executive dues. It is evident that such an individual is very difficult to find, and such an appointment must not be made until the right man can be found for the position.

The changes in the curriculum of the third and fourth years are beginning to show the benefit of an earlier introduction of the student to the clinical clerkship. The transition last year worked a hardship on the fourth-year students, but it has given a present senior class far better prepared to do clinical work and much more receptive to the increased responsibility that comes with the duties of the senior in the Vanderbilt Clinic.

The experience of last year in the new wards has shown the great advantage of teaching the third-year sections in the visitors' room in the center of each floor. For the inexperienced student being initiated into bedside work there are entirely too many distractions in a large ward and his attention is far more easily focused on the problem of history taking and physical examination with the one patient in a quiet room surrounded by the ten or twleve students comfortably seated and attentive to the discussion going on.

Now that the student dormitory is assured it is felt that a very vital defect in the surgical course will be remedied. In groups of two or four the third- and fourth-year students on call in the dormitory will be given the opportunity of seeing and examining the acute lesions, such as the acute abdomen, the fresh fracture, the cases of severe trauma, brought into the emergency ward usually at night. It has also been suggested that because of the enlarged surgical services with the need of more help in clinical microscopy when the junior interne is off duty every other Sunday, the clinical clerks be assigned externe duty in rotation on the two general surgical services.

The shortening of the course in surgery in required hours will make it necessary to readjust the third-year course in regional surgery. For those particularly interested in the diagnosis and therapy of surgical lesions

the free quarter in the fourth year will offer an opportunity to take advanced clinical work. Because the new schedule limits the clinical clerkship in the senior year to the one quarter at the Presbyterian Hospital, the elective work in clinical surgery will be offered at Bellevue. This fortunately will prove more agreeable to Dr. McCreery and his associates than has been the previous arrangement of dividing the section between Bellevue and Presbyterian. That the majority of students will desire to elect this Bellevue service is evident from the questionnaire that was sent to the seniors this past spring. It is felt that the students electing surgery at Bellevue will greatly benefit by seeing a somewhat different type of surgery, in a hospital where they will be placed more on their own responsibility and under the instruction of a different but keenly interested and able group of surgeons.

The work at the Presbyterian Hospital during the past year has been as interesting as it has been strenuous. With both services in general surgery increased by thirty per cent, a new service in fractures, new and valuable contacts with the Departments of Oto-Laryngology and Ophthalmology, and a greatly enlarged urological service, the actual amount of work has correspondingly increased. But the most striking feature of the year's experience has been the character and variety of clinical material. Due in part to the desire of many patients to see the facilities of a much-heralded hospital, in part to the new location, and in large part to the greatly enlarged Vanderbilt Clinic, the demand for admission to the new hospital has been felt by the surgical service as much as by other services.

Research

The organization of work in Surgical Fellowships has proven most satisfactory. During the past year Drs. Sloan and Webster on the First Division and Drs. Moore and Harvey on the Second Division have spent approximately half their time in clinical work and in the remaining six months have engaged in laboratory investigation. Dr. Sloan working in the thyroid clinic, has been studying the problem of creatin metabolism in hyperthyroidism with Dr. Palmer. Dr. Webster has been comparing the relative merits of live and sterilized dead fascia as suture material in experimental animals. In his clinical work he has, in addition to the general surgical ward work, been engaged in doing a considerable part of the plastic surgery, a special branch that he is particularly interested in. Dr. Harvey, working with Dr. Meleney, has been studying the anaërobic organisms present in human cases of peritonitis and has also studied the bacterial flora of the colon in cases of non-specific ulcerative colitis. Dr. Moore, following his work with Dr. Binger at the Rockefeller Institute, has been comparing the arterial and venous blood flow in complete lung collapse with the unaffected lung. These experiments requiring accurate work in blood gases have given uniform findings which are to be published in one of the journals in physiological research.

Dr. Meleney has continued his work in the study of pathogenic anaërobes and is now engaged in standardizing the technique of sterilizing catgut for surgical procedures. This study is to be accepted by the five leading surgical catgut manufacturers and is sponsored by the American College of Surgeons.

Dr. Laidlaw, working in the surgical laboratory, has been developing stains for morphological sections which would seem to differentiate accurately connective tissue from epithelial derivatives and promise very valuable stains in differentiating carcinoma from sarcoma in many of the tumors hitherto classified as undifferentiated. His work is attracting the sharp attention of several of the best known pathologists.

A group of very unusual cysts of the parenchyma, notably liver and pancreas, that appeared in the general surgical service have been studied by Dr. O'Connor of the Department of the Practice of Medicine and Dr. Whipple. These lesions have certain clear-cut clinical features in common and have proven sterile for bacteria but have shown a yeast or fungus that as yet has not been found described in the literature. The study of the pathogenesis of these lesions in experimental animals and the further differentiation of these yeast organisms is being carried on at present.

A combined study in the anomalies of the duodenum as determined in the dissecting room, the barium gastrointestinal fluoroscopies, and in the operating room is being carried on by Drs. Schullinger, Grinnell, Golden, and Whipple. Dr. Detwiler has been most cordial in offering us the facilities in the Anatomical Department.

Dr. Auchincloss has been collecting the clinical and pathological data in the unusual cases of carcinoma of the breast for the purpose of getting a more accurate knowledge of the paths of extension of the disease and their relation to the operative attack.

Dr. Whipple is convinced that by revising the method of appointing internes to the surgical staff it will be possible to develop more of the younger group prepared for and interested in research problems. If two selected students each year be given a three-year appointment, the first year to be spent in one of the fundamental departments in the development of scientific method and critique, these internes as they continue their two years work in the clinic will be better prepared to do fellowship work or to engage in original work in the laboratory of the School and hospital at the completion of their interneship.

Orthopedic Surgery

An important development has taken place in connection with orthopedic work in the establishment of eight fellowships in orthopedic surgery through a special gift to the hospital for that purpose. These Fellows will receive a salary of \$5,000 a year. The object of them is to furnish opportunity for men of proven ability to perfect themselves in orthopedic surgery

by having three years after their hospital service of full-time work freed from financial burdens.

First Surgical Division, Bellevue Hospital

Teaching during the past two years has been beset with numerous difficulties, dependent on the move of the Presbyterian Hospital and other changes in the teaching schedule. The Director feels that the proposed revision of the schedule for the coming year is a great improvement. While it may possibly lessen the number of students, as not all will elect Bellevue Hospital for surgery, it should result in a group who are interested in surgical problems whose instruction should be an increased stimulus to the teaching staff.

During the past year, through the courtesy of Dr. Burdick, it has been possible to continue using the facilities of the Fourth Division. Dr. Beekman has continued his excellent series of discussions and demonstrations of the surgery of children, while Dr. McQuillan has commenced a course based on the large number of cases of thyroid disease coming to the Fourth Division endocrine clinic. It is felt that this course has been of very real value to the students.

The principal advance in the work of the Service during the past year has been in the out-patient department. Working with the aid of Dr. Norrie, a joint medical and surgical clinic for gastrointestinal diseases has been established, Dr. Krech taking active charge of the surgical part of the work. This clinic has functioned as a diagnostic clinic, diminishing the pre-operative stay of patients in the hospital and has been of great value in directing their post-operative care. A large amount of material has been culled from the general medical clinic. It should become of increasing value and will be of much use next year for teaching purposes.

Dr. Weeks has carried on an interesting study of varicose veins, and has been able to confirm the value of the injection methods recently described. The importance of these methods in shortening the patient's disability and in lessening the burden of the out-patient work is hard to over-emphasize.

At the present time plans are under discussion for the establishment of a thyroid clinic. It is hoped to have this clinic active next year, when the out-patient department will be transferred to the new building.

Bibliography

Berry, Frank B.: "Phases of the Etiology and Treatment of Abscess of the Lung," Rhode Island Medical Journal, October, 1928.

"Massive Atelectasis Complicating Paravertebral Thoracoplasty for Pulmonary Tuberculosis," *Journal of the American Medical Association*, 1929, Vol. 18, Part 2, pp. 257-67.

- Grace, Roderick V.: "Fracture of Carpal Scaphoid," Annals of Surgery, Vol. 89, May, 1929.
- Lambert, A. V. S.: "Surgical Diagnosis and Treatment of Lung Abscess," Laryngoscope, April, 1929.
- Lambert, A. V. S. and Weeks, Carnes: "Experimental Production of Abscess of the Lung," Annals of Surgery, 1929, Vol. 18, Part 2, pp. 516-29.
- McCreery, John A.: "Carcinoma of Stomach," Annals of Surgery, 1927, Vol. 86, p. 461.
 - "Ulcer of Stomach," Annals of Surgery, 1927, Vol. 86, p. 462.
 - "Separation of Lower Epiphysis of Femur, Closed Reduction," Annals of Surgery, 1927, Vol. 86, p. 463.
 - "Osteo-Fibroma of Superior Maxilla," Annals of Surgery, 1928, Vol. 87, p. 304.
 - "Fibroma of Lower Jaw," Annals of Surgery, 1928, Vol. 87, p. 305.
- McCreery, John A. and Berry, Frank B.: "A Study of 520 Cases of Fractures of the Skull," *Annals of Surgery*, Vol. 88, November, 1928.
- MacGuire, Constantine J., Jr.: "Carcinoma of Jejunum," Annals of Surgery, Vol. 85, No. 5, May, 1927.
 - "Recurrent Ulcer of Jejunum," Annals of Surgery, Vol. 85, No. 5, May, 1927.
 - "Some Clinical Findings in Subtotal Gastrectomy," Annals of Surgery, Vol. 89, No. 5, May, 1929.
- McWhorter, John E.: "Malignant Epithelial Tumors of the Neck of Unknown Origin," Annals of Surgery. (In press.)
- Potter, Philip C.: "Von Recklinghausen's Disease with Sarcomatous Degeneration of a Deep Fibroma—Autopsy." (In press.)

Urology

The Department of Urology has completed its first year with a hospital service of its own. The first case was admitted on May 4, 1928, and up to May 1, 1929 there have been 1,019 patients passed through the Department. Of these, 769 have been hospitalized in the wards and private rooms of the Squier Urological Clinic, and 250 in the Harkness Pavilion. In the out-patient department, located in the Vanderbilt Clinic, an average of 30 patients a day have been examined, treated, and if necessary, hospitalized. The ward cases have been used for teaching material for the third-and fourth-year medical students in the wards and in the operating rooms, while the private patients have been used for operating room teaching only. There have been 493 operations performed, all of which have been open for student audiences. Sixteen autopsies have been performed to which the students have been invited.

The work in the X-ray, cystoscopic, and laboratory units of the clinic have added greatly to the opportunities for student teaching. Over 1,500

X-ray examinations have been made including cystograms, uretergrams, and pyelograms. A cystoscopic examination has been made on 530 patients. In the laboratory all types of pathological, bacteriological and chemical examinations used for surgical urological diagnosis have been made. All these tests are of the greatest assistance in teaching medical students the fundamentals of urology.

The Department has been called into consultation by other departments of the hospital on 175 patients. It has been the aim of the Department to return a complete urological work-up upon any patient who has been referred to them for consultation from other departments in as short a time as possible.

The resident staff have been working on various theses, it being a part of their work to produce one article a year during their terms as resident house officers.

In March a clinic was held for the New England branch of the American Medical Association at which over 60 members from various cities of New England and Pennsylvania were present. The Professor of Urology was invited to address the Detroit Urological Society at their annual meeting in Detroit in March, 1929.

The Department has been visited, and the operative clinics attended, by many surgeons from both home and abroad. The clinic has felt the temporary loss of our associate, Dr. Harold H. Gile who was taken sick early in the fall of 1928.

Bibliography

- Buchanan, T. Drysdale: "The Oral-pharyngeal Method of Anesthesia," Year Book of the New York and New England Association of Railway Surgeons, 1928.
- Cahill, George F.: "Treatment of Bladder Paralysis Due to Non-tabetic Spinal Cord Lesions," *American Journal of Surgery*, 1928, Vol. 5, pp. 442-44.
- Cahill, George F. and Gile, Harold H.: "Calculus Anuria," Journal of the American Medical Association, 1928, Vol. 91, pp. 1970-72.
 - "Papillary Carcinoma of the Kidney of Cystic Formation," North American Journal of Surgery, reprinted from the Journal of Urology, 1928, Vol. 20, No. 2.
- Cleveland, Mather: "Giant Cell Tumor of the Tibia," American Journal of Surgery, 1928, Vol. 5, pp. 73-75.
- Colp, Ralph: "The Relation of Social Service to Surgery," Hospital Social Service, 1928, Vol. 18, p. 1.
- Colp, Ralph and Findlay, R. T.: "Fractures of the Humerus," Surgical Clinics of North America, 1928, Vol. 8, pp. 461-67.
 - "The Use of Pedicle Grafts in Traumatic Surgery," *International Clinics*, 1928, Vol. 1, Series 38.

- Cunningham, W. F.: "Branchial Cysts of the Parotid Gland," Annals of Surgery. (In press.)
- Darrach, William: "Le Traitement Précoce des Fractures," Paris Chirurgical, 1928, Vol. 20, p. 111.
 - "The Early Treatment of Fractures," Surgery, Gynecology and Obstetrics, September, 1928, pp. 422-23.
 - "Skyscrapers in Medicine." Address delivered before the College of Physicians of Philadelphia, December 18, 1928.
 - "The Interneship as a Requirement for the Medical Degree," Journal of the American Medical Association, 1929, Vol. 92, No. 16, p. 1356.
 - "The Profession and the Medical Center," Bulletin of Bronx County Medical Society, 1929, Vol. 7, No. 4, pp. 117 and 119.
 - "Report of the Dean of the School of Medicine for 1928," Columbia University Bulletin, 1929, Series 29, No. 28.
 - "Disasters Following Operative Treatment of Fractures," Annals of Surgery. (In press.)
- Grinnell, Robert S. and Smith, George van S.: "Carcinoma of the Body of the Uterus," *American Journal of Obstetrics and Gynecology*, 1928, Vol. 15, No. 6, p. 832.
- Hanford, John M.: "Early Diagnosis and Early Radical Operation in Tuberculous Lymph Glands of the Neck," New York State Journal of Medicine, 1928, Vol. 28.
- Hibbs, Russell A. and Swift, Walker E.: "Developmental Abnormalities at the Lumbosacral Juncture Causing Pain and Disability. A Report of One Hundred and Forty-seven Patients Treated by the Spine Fusion Operation," Surgery, Gynecology and Obstetrics. (In press.)
- Labat, Gaston: "Regional Anesthesia for Orthopedic Operations Upon the Spinal Column," Anesthesia and Analgesia, January-February, 1928.
 "Elimination of Dangers of Spinal Anesthesia," American Journal of Surgery, 1928, Vol. 5, No. 6, p. 625.
- Louria, Henry W.: "The Surgical Treatment of Gastric and Duodenal Ulcer," Surgery, Gynecology and Obstetrics, October, 1928.
- Louria, Henry W. and Rosenzweig, Maxwell: "The Ascheim-Zondek Hormone Test for Pregnancy," Journal of the American Medical Association, December 22, 1928.
- Meleney, Frank L. and Zau, Z. D.: "Antistaphylococcic Effects of the Intra-arterial Injection of Certain Dyes. Report of Intra-arterial Injections of Mercurochrome 220 Soluble, Gentian Violet and Acriflavine in the Treatment of Experimental Staphylococcic Infections in Dogs," Annals of Surgery, 1928, Vol. 88, pp. 961-64.
 - "Aërobic and Anaërobic Examples of Hemolytic Bacterial Synergism," Proceedings of the Society for Experimental Biology and Medicine, 1928, Vol. 26, pp. 205-206.

- "The Importance of Early Diagnosis and Early Operation in Hemolytic Streptococcus Gangrene," Journal of the American Medical Association. (In press.)
- Meleney, Frank L., Zau, Z. D., Zaytzeff, Helen, and Harvey, Harold D.: "Epidemiologic and Bacteriologic Investigation of the Sloane Hospital Epidemic and Hemolytic Streptococcus Puerperal Fever in 1927," American Journal of Obstetrics and Gynecology, 1928, Vol. 16, pp. 180-98.
- Meleney, Frank L., Zaytzeff, Helen, Harvey, Harold D. and Zau, Z. D.: "Reciprocal Agglutination and Absorption of Agglutinin Tests with Fifty-four Strains of Hemolytic Streptococci Associated with an Epidemic of Puerperal Fever," *Journal of Experimental Medicine*, 1928, Vol. 48, pp. 200-13.
- Moore, Richmond L. and Harrison, Tinsley Randolph, "Ueber die Beziehungen des N. Vagus zur Atmungsmechanismus," Zeitschrift fur die Gesamte Experimentelle Medizin, 1928, Vol. 61, pp. 305-15.
- Parker, Douglas B.: "Surgical Treatment of Clefts of the Palate and Lip," American Journal of Surgery, April, 1928.
- Parsons, William Barclay, Jr.: "A Follow-up Study of Thyroidectomy for Hyperthyroidism," *Tri-State Medical Journal*, 1929, Vol. 1, No. 6, p. 106.
- Potter, Philip C. and McWhorter, John E.: "Von Recklinghausen's Disease with Sarcomatous Degeneration of a Deep Fibroma—Autopsy." (In preparation.)
- Smith, Alan DeF.: "Pain in the Low Back Caused by Structural Variations in the Spine," Journal of the New Jersey State Medical Association. (In press.)
- Solley, Fred W.: "Chronic Intussusception," American Journal of Surgery, 1928, Vol. 6, No. 3, p. 367.
- Squier, J. Bentley: "Stone in the Kidney," Nelson's Loose-Leaf Surgery.
- Stimson, Barbara B.: "Changes in the Oxygen Capacity of Rabbits Following Partial Hepatectomy," *Journal of Biological Chemistry*, 1928, Vol. 78, p. 2.
- Titus, Norman E.: "Electrical Treatment of Subdeltoid Bursitis," American Journal of Surgery, 1929, Vol. 6, No. 3, pp. 318-21.
- van Beuren, Frederick T., Jr.: "How Doctors Are Made," Personality Magazine, September, 1928.
 - "The Tradition of Medicine," New York State Journal of Medicine, 1928, Vol. 28, No. 22.
- Vance, B. M. L.: "Fatal Fat Embolism," Archives of Pathology, 1929, Vol. 7, p. 554.

von Lackum, H. LeRoy: "Sympathetic Ramisection in Spastic Paralysis. A Report of Forty Cases from the Service of the New York Orthopedic Dispensary and Hospital," *Journal of the American Medical Association*, 1929, Vol. 92, pp. 139-42.

Whipple, Allen O.: "Cholecystectomy in Bile Typhoid Carriers." Paper read at the meeting of the Roosevelt Hospital Alumni Association, New York, November 21, 1928.

"A Preliminary Report on Mycotic Cysts of the Liver." Paper read at the joint meeting of the Philadelphia-New York Surgical Societies, New York, February 13, 1929.

"The Clinical Course of Subacute Yellow Atrophy as Observed in Two Proven Cases," American Journal of Surgery, May, 1929.

"The Surgical Treatment of Bile Typhoid Carriers." Paper read at the meeting of the American Surgical Association, Cleveland, Ohio, May 3, 1929.

THE SCHOOL OF TROPICAL MEDICINE

The most outstanding event during the past year was the resignation of Doctor Robert A. Lambert as Director of the School of Tropical Medicine. He was succeeded by Doctor Earl B. McKinley. Dr. McKinley was not a stranger either to the School or to problems of tropical medicine, as he was the first Visiting Lecturer in 1926. He was formerly a member of the Department of Bacteriology at the College of Physicians and Surgeons from which he resigned in 1927 to take a position with the Rockefeller Foundation in their work in the Philippine Islands.

The entire Faculty of the School has continued its loyal support of the enterprise. Most of the members of the Faculty have continued to serve the School without monetary recompense. There have been but two resignations during the year. Dr. Alice Burke has submitted her resignation as Instructor in Pathology because of the plans of her family to move to California where she will enter practice. Dr. Garry Burke has resigned as Instructor in Tropical Medicine and Surgery. Dr. Garry Burke and Dr. Alice Burke have served approximately ten years in Porto Rico and they have been connected with the School since its beginning. Their service to the community and to the island can hardly be overestimated. Dr. Oscar Costa Mandry has transferred to the Sanidad to become director of the public health laboratories. There have been no other changes in either the professional or non-professional personnel.

During the two sessions of the present school year there have been a total of twenty students. Of these, fifteen are physicians and five hold other degrees (B.S., M.S.) which have permitted their taking graduate courses. Two of these are candidates for the M.A. degree in Columbia University, one in Bacteriology and one in Pathology. A third is a candidate for the M.A. degree in the University of Porto Rico. One physician

will shortly complete the requirements for a Certificate in Tropical Medicine. Visiting professors and lecturers to the School during the past session were as follows:

Professor Edwin O. Jordan, Professor of Hygiene and Bacteriology, University of Chicago.

Dr. F. W. O'Connor, Associate Professor in the Department of the Practice of Medicine, Columbia University (formerly instructor in the London School of Tropical Medicine).

Dr. Ernest E. Irons, Dean of Rush Medical College.

Dr. Alwin M. Pappenheimer, Professor of Pathology, College of Physicians and Surgeons, Columbia University.

Dr. F. P. Gay, Professor of Bacteriology, College of Physicians and Surgeons, Columbia University.

Dr. Wilson G. Smillie, Professor of Public Health Administration, Harvard University.

Professor Jordan gave three scientific lectures on the subjects of influenza, the typhoid fevers and food poisoning. In addition to these addresses he gave three lectures to the class in bacteriology on the bacteriology of influenza, the food poisoning group and a third lecture on bacterial variation. Professor Jordan also spoke before the San Juan and Ponce sections of the Porto Rico Medical Association. His interest, advice and counsel have initiated some fundamental work on the food poisoning infections in Porto Rico which will be carried on by one of the students at the School.

Dr. O'Connor gave several clinics on filariasis and carried on field and laboratory studies in connection with this disease. A large number of cases have been studied from various standpoints and it is hoped that a very important contribution to knowledge of filariasis will result from these investigations. In addition to research Dr. O'Connor has given a course in protozoölogy utilizing cases and fresh material for study in so far as it has been possible.

Dr. Irons came to the School of Tropical Medicine in an unofficial capacity and the School owes him a debt of gratitude for the deep interest he manifested in all that is being done. Dr. Irons gave two scientific lectures at the School and addressed the Porto Rico Medical Association in Ponce and in San Juan.

Dr. Pappenheimer has spent nearly three months on the island and has developed the routine work of the Department of Pathology in a very splendid manner. Through this department the School has been able to coöperate with the Municipal Hospital of San Juan in a very effective way and the autopsy and diagnostic service offered by this department has been extended to various points in the island. This service is open to the medical profession of the island and it is to be hoped that the utmost use of it may be made. Since the beginning of the School's activities 219 autopsies have been performed while over 1,900 surgical specimens have been examined and reported on to various hospitals and private physicians.

Lectures were also given at the School by Dr. Gay and Dr. Smillie. The School has been glad of the opportunity to lend its facilities and coöperation to Dr. Smillie and his expedition to the West Indies to study certain aspects of the influenza problem.

Regular Thursday evening programs and Saturday morning clinics have been held throughout the year. From time to time meetings have been held on other occasions. These meetings have been open to all physicians of the island and to public health officers. In some instances laymen have been invited to attend certain programs though it has been the policy of the School to welcome all who are interested in the work of the School regardless of whether they hold medical degrees or not. As a rule, however, the meetings are attended only by the medical profession.

The following meetings have been held:

Clinics (Saturday mornings)				25
Seminars (Thursday evenings)				
Clinico-pathological conferences (Thursday evenings)				
Public lectures by visiting men				ΙI

The routine service established by Dr. Lambert in pathology has been continued. Other public health laboratory examinations are cared for by the biological laboratory of the Health Department. From time to time special materials are examined in the bacteriological and chemical laboratories of the School but no routine service in these departments is offered. In the last annual report of the Director of the School the number of tissues, mostly surgical, examined was 1,499 and a total of 147 autopsies was reported. At the time of writing the total number of tissues examined since the beginning of the School is 1,930 while 219 autopsies have been performed.

Physicians continue to send to the School a fairly large number of patients for special examinations and study. No charges are made for these examinations.

The School has continued to enjoy the full coöperation of the Presbyterian Hospital in Santurce. Much valuable teaching and research material have been furnished by this institution. Furthermore the personnel of the Presbyterian Hospital have contributed generously of their interest and time in taking part in the activities of the School. Within the past few months coöperation has been extended to the Municipal Hospital of San Juan and has met with hearty coöperation on the part of the members of the staff of that institution. Various autopsies and tissue examinations are now being made for the Municipal Hospital and the Director of Laboratories of the hospital is carrying on investigative work in which he is utilizing the facilities of the School. The Municipal Hospital has also furnished much valuable material for research on filariasis, a study of which is now in progress.

Through the routine service, contact with the Municipal Hospitals in Bayamon and Rio Piedras have been perpetuated. Many specimens are received from various parts of the island, both from hospitals and private physicians, for examinations.

The San Juan District Hospital is nearly completed. Most of the equipment has been ordered and it is expected that this hospital may be opened by the latter part of the summer. As was stated in the last annual report, this hospital will constitute a most valuable addition to the School's clinical facilities, not only by reason of its physical proximity but through the fact that under an agreement with the Department of Health the Hospital will be operated as the research-teaching clinic of the School. The report also called attention, in connection with the plans for operating the district hospital, to the principle which is being adopted everywhere in the world, where modern medicine exists, of having hospitals and medical schools closely associated in teaching and research enterprises. In such an organization the responsibility for clinical laboratory appointments is delegated to the associated medical school or university. Through such an organization it has been found possible to develop the highest educational standards. While the plan of cooperation between the School of Tropical Medicine and the Health Department with respect to the District Hospital aims at this idea it goes without saying that, sooner or later, a closer alliance of the hospital with the School should be developed. For matters of administration it is quite apparent that one unit, hospital and School, will function more economically and with greater efficiency for the benefit of the island of Porto Rico and provide a more complete demonstration of the possibilities of an educational hospital service, such as this, for Porto Rico and tropical America in general.

At present very important work is going forward on the study of filariasis, experimental fungous diseases, experimental measles, lethargic encephalitis, parasitic immunity and problems in the field of food chemistry are being investigated. The problem of tropical anemias is, as in the past, receiving much attention.

The Director is happy to state that a gift of \$10,000 has been made to the School of Tropical Medicine by Dr. Joel E. Goldthwait of Boston for the establishment of a Bailey K. Ashford Fund for the study of tropical diseases. The income derived from this fund is to be used to support a fellowship. The School is also soon to have a Fellow of the C. R. B. Educational Foundation from Belgium who will come here to study tropical diseases in preparation for his projected service and work in the Belgian Congo. The C.R.B. Educational Foundation was founded by President Hoover immediately following the world war and it is gratifying that one of their Fellows should choose to come to Porto Rico to prepare for his work in Africa. In this connection, it should be mentioned that the United States Navy has this year sent two physicians for special work in the School. One of the Navy officers detailed here remained only one session. The second Navy officer to come is definitely to be assigned for a two-year period during which time he will qualify for the Certificate of Tropical Medicine. It is to be hoped that the United States Navy will

continue sending physicians for special work in tropical medicine and that in due time the United States Army will begin a similar custom.

The School has continued to receive \$30,500 annually from the Government of Porto Rico, as a direct appropriation from the University Trust Fund. For the current year Columbia University appropriated \$31,100 for the salaries of four continental Americans, and for the traveling expenses of visiting lecturers. This represents an increase of \$10,100 from Columbia over their appropriation for the previous year which was \$21,000. The total income of the School for the current year is \$61,600 from those two sources. In addition to this sum there has been collected in student fees the sum of \$1,897.65 which is delegated by Columbia University to the use of the School for special purposes. It is hoped that additional funds may be given by wealthy individuals and corporations having large material interests on the island. Gradually as the School demonstrates its capacity for accomplishing work which will be of great benefit to Porto Rico, and this becomes known, such assistance as mentioned should be forthcoming.

Respectfully submitted,

WILLIAM DARRACH,

Dean

June 30, 1929

SCHOOL OF ENGINEERING

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit to you the following report on the work of the School of Engineering for the academic year just closed.

The annual reports to the Dean from the several engineering departments present features of the year's activities which may briefly be reviewed as follows:

In the Department of Chemical Engineering the enrollment is about equally divided between students who are engaged in a program of study leading to the professional degree of Chemical Engineer and those who are working toward the more specialized degrees of Master of Arts and Doctor of Philosophy. Twenty-one students who hope to attain the Ph.D. degree have been working under the Department this year. Increased provision has been made for laboratory work in subjects relating to industrial water supply and waste disposal; research facilities in electrochemistry have been extended until Professor Fink has been able to have fifteen students engaged on research problems under his guidance through the year.

The staff has been filled out and given a more permanent status by the advancement to assistant professorships of two well-tried instructors, Lincoln T. Work, A. B., Columbia, 1918; Ch.E., 1921; Ph.D., 1929; and William deG. Turner, B.S., Chicago, 1909; Ph.D., 1929. Mr. Work's interests lie chiefly in the engineering or physical part of chemical engineering; Mr. Turner's tend towards the more definitely chemical problems.

Professor J. J. Morgan spent a sabbatical leave for the Spring Session in visiting gas plants in many countries of

Europe and studying there the manufactured gas industry and the fuel problem generally. Professor R. H. McKee received in June the honorary degree of Doctor of Science from both his alma mater, Worcester College, and the University of Maine, where he was sometime professor.

Even with the increased floor space that Chandler Hall has given, this department is again crowded and has to look forward to the desired building on the Green, on Broadway at 120th Street, between Chandler Hall and the Physics Laboratories. Revised plans and architectural drawings for this building have been prepared this year. They show a building of the height of Chandler Hall, but with a corner tower rising ten or twelve stories higher. The importance of chemistry in its industrial applications is now so great that it is not too much to hope for and to work for a laboratory building and equipment at Columbia that will go well beyond what has yet been attempted in provision for the training of men in the spirit of research, and in the midst of research, to undertake the responsibility for progress in the chemical industries, to which no limit appears.

In the Department of Civil Engineering Professor Krefeld has just completed an investigation of the failure of flame-cut steel wind-bracing brackets, which clearly sets forth some of the effects of flame cutting on structural steel. A publication will soon be issued on this. Mr. Snader, as Trowbridge Fellow, has continued his work on the cause of concrete disintegration, with laboratory tests, including micrographic, on 180 concrete samples from many structures. He has progressed in reducing to form for publication the large amount of data obtained in this study in which he has been engaged for several years.

The testing laboratories have had another very active year, which has emphasized again the inadequacy of the present laboratory space and equipment to care for the materials testing problems that arise in the metropolitan district, and that may fairly be referred to Columbia University. This subject will be taken up again later in this report. Professor A. H. Beyer, director of the testing laboratories, has been an

active member of the Committee on Fire-resistive Construction in connection with drafting the revisions of the building code of the City of New York. Professor Lovell was absent on sabbatical leave through the Winter Session.

In coöperation with the Portland Cement Association the Department has offered a combined lecture and laboratory course on the design and control of concrete mixtures. The course was given in evening hours to a total of about one hundred engineers, architects, contractors and others who enrolled as students.

The Department of Electrical Engineering reports an unusual demand for electrical engineering graduates, particularly on the part of some of the larger employing corporations. No changes of note have been made in the regular courses of instruction but an innovation has been tried by showing technical motion pictures regularly once a week. The films were supplied by various electrical manufacturers and the purely voluntary attendance by students indicated that they considered time well spent in informing themselves through such pictures. The practice will be continued next year. The laboratories have had several additions to their equipment, the most valuable being a six-element Westinghouse oscillograph.

An interesting incident was the visit of Mr. Henry Ford to the laboratories to look over our collection of historical pieces of electrical apparatus. He found that we had many pieces, particularly those illustrating the stages of the work of Mr. Edison, which he desired for the institute and museum he is founding and is naming in honor of Mr. Edison. After appropriate authorization the Department was able to give to Mr. Ford numerous pieces of apparatus and machinery to go into the museum.

Professor J. H. Morecroft received the honorary degree of Doctor of Science in June from his alma mater, Syracuse University. Professor Morecroft has published a new book, The Elements of Radio-Engineering, which he has written for the use of those who wish a more elementary book than his Principles of Radio Communication. Professor Slichter contributed the articles on electrical engineering for the new

supplement of the *International Encyclopaedia*. He continues to take an active part in the standardization work of the American Institute of Electrical Engineers and the International Electrical Commission. He attended the summer convention of this organization at Denver, Colorado, last summer in his capacity of chairman of the committee to determine the effect of high altitude upon the operation of electrical machinery, a subject which is becoming of international importance because of the competition for business in South America.

Among our alumni it should be noted that Philip Sporn, E.E., 1917, received the First Prize of the American Institute of Electrical Engineers for the best paper of the year 1928 in the field of engineering practice for a paper on "The Rationalization of Transmission System Insulation." Mr. Sporn presented another paper this year at the annual convention entitled "Lightning Experience on Transmission Lines."

The Department of Geology and Mineralogy will profit by the building of the new wing of Schermerhorn Hall. This new wing, to be completed in the fall of 1929, stands in the same relationship to Schermerhorn as Chandler Hall does to Havemeyer Hall. In it this department will have a new mineralogical laboratory, an X-ray spectrographic laboratory and certain research rooms and basement storage space. At the same time mezzanine floors are being constructed in the large laboratory rooms in the basement of Schermerhorn Hall, chiefly to give increased floor space for the economic geological collections.

Professor C. F. Heiland of the Colorado College of Mines, who is in charge of the Department of Geophysics in that institution, lectured here for five weeks in February and March on modern geophysical methods as used in making subsurface exploratory investigations. His lectures proved valuable to all those, chiefly students of geology, who attended them. A permanent appointment to the staff of a member to take charge of instruction and research in modern geophysics as applied to geology and the location of ore bodies and other minerals has not yet been made.

The appointment at the beginning of the year of William M. Agar, Ph.D., Princeton, 1922, as Assistant Professor of Geology has added strength in economic geology especially. For next year another new appointment has been made, Armin K. Lobeck, Ph.D., Columbia, 1917, as Associate Professor of Geology. Professor Lobeck, who comes from the University of Wisconsin, will have charge of the course in general geology for undergraduates and will be associated with Professor D. W. Johnson in instruction and direction of research in physiography.

Professors Berkey and Johnson have gone as delegates from the National Academy of Sciences, the National Research Council and the Geological Society of America to the Geological Congress to be held in Capetown and Pretoria, South Africa, during July and August, 1929. In the Winter Session Professor Berkey was granted leave of absence for several weeks to enable him to accept a position as a member of the board of five engineers and geologists appointed to report to the President of the United States on the Boulder Dam project. He made extensive investigations in the field and served as secretary for the board.

Professor Johnson has been appointed consultant to the board on sand movement and beach erosion established by the Chief of Engineers of the United States Army for the purpose of making special investigations of shore conditions along the Atlantic coast. At the request of the National Park Service and the National Academy of Sciences, he visited the Grand Canyon of the Colorado in May to assist in the development of an educational program in connection with our National Parks. Professor Johnson attended the 1928 meeting of the International Geographical Congress in London and Cambridge and also the British Association meeting in Glasgow. He was made a vice-president of the geography section of the Association before which he gave an address on the physiography of the Atlantic shore line. He also gave the presidential address before the Association of American Geographers at the meeting of the American Association for the Advancement of Science in December.

Professor Agar, together with Messrs. Longwell and Flint of the Yale faculty, has published a source book entitled *Geology from Original Sources*.

The Department of Industrial Engineering continues its practice of having the students visit offices of representative industrial corporations to be addressed there by executives of the companies on problems of the industries. In the past year officers of the following companies addressed student groups in this way: New York Times; Bohack Baking Company; Ford, Bacon and Davis; Harriman National Bank; American Car and Foundry Company; R. H. Macy and Company; McFarland Foundry and Machine Company, Trenton, N. J.; Edison Lighting Institute; Cornell Iron Works; Lord and Taylor; Hotel McAlpin; Thermo-Electric Company; Parsons, Klapp, Brinkerhoff and Douglas; Splitdorf Electric Company; Third Avenue Railroad Company; Du Pont Viscoloid Company; the Celluloid Company; Western Electric Company. A further plan is being worked out under which students of the third year will make appraisals and economic reports on small industries in the vicinity of New York.

Professor W. S. Ayars is the Columbia representative at the Summer School for Engineering Teachers conducted by the Society for the Promotion of Engineering Education at Purdue University from June 27 to July 18, 1929, where some fifty teachers of mechanical or industrial engineering, and more than forty lecturers, distinguished as industrial leaders, engineers and educators, are now assembled to study the teaching of heat engineering, engineering design, and industrial production.

The Department of Mechanical Engineering has proposed and the Faculty has approved rearrangement of the curriculum which will leave the individual student free to elect courses in several main lines, but which will not separate the curriculum of the last two years as heretofore into the two specific options relating to standard machinery and public utility power.

Professor Lucke was chosen as arbitrator between the United States Navy Department and the American Gas and Electric Company in the valuation of the Appalachian Electric

Power Company. The parties concerned were very far apart at the beginning of the negotiations but were finally brought to an agreement by a new and rational method of evaluation proposed by Professor Lucke, which has been published in the report of this arbitration.

Professor Shoudy has been an active member of the Prime Movers Committee of the National Electric Light Association. As a member of the Publications Committee of the American Society of Mechanical Engineers he has done much to improve the publications of the Society. He has also published several articles on power plants in engineering journals. Several periodicals have published articles by Professor Livingston on power economics, and these have received very favorable comment.

For some time past Mr. Kayan has been conducting tests on refrigerators for the National Association of Ice Industries and the National Refrigerator Manufacturers Association, and on account of this work he has been appointed a member of the Refrigerator Committee of the American Standards Association and of the Refrigerator Performance Committee of the American Society of Refrigerating Engineers, with the special assignment of developing test codes. Such work as this shows that if we can offer facilities for testing and research work in mechanical engineering industries will gladly avail themselves of them and will give coöperation and support. Mr. Kayan was also appointed a member of the Heat Transmission Committee of the National Research Council on account of work done in another branch of heat transmission.

Arrangements were made for the naval officer students in the Diesel engine course here to do their testing practice upon the Diesel engines at the U. S. Navy Submarine Base at New London, after the year's work here. The plan worked out well in the summer of 1928 and promises to be still more successful this summer. The preliminary report and test layout for this work by the student was made here in the Spring Session. After approval by the instructors, copies were forwarded to the Postgraduate School for further

transmission to the Bureau of Engineering and to the submarine base. In May, Professor Lucke accepted an invitation from Captain Church to address the Postgraduate School at Annapolis on "The Future of Power for Ships and Aircraft."

The gift of a two-cylinder Winton Diesel engine with generator, from the Winton Engine Company, gives the Department a new and very serviceable piece of equipment for laboratory use, one that is not too large for students to handle, and not too expensive to run.

The Department of Mining and Metallurgy was at the beginning of the year faced with the serious situation created in the mining division by the death of Professor Raymond in the summer, and the fact that Mr. Browning, Associate in Mining, had asked not to be reappointed since he desired to return to professional engineering practice. Mr. Browning met the emergency by very generously consenting to return for one year to conduct, with the Professor of Ore Dressing, the teaching for which Professor Raymond and Mr. Browning had previously been responsible. It is appropriate to say that this service of Mr. Browning deserves and has our grateful thanks. New appointments to the mining staff have been made for next year and are discussed later in this report.

Professor Arthur L. Walker, since 1908 Professor of Metallurgy, requested retirement at the end of this year, having just reached the age at which retirement may be requested under the Statutes. Professor Walker brought with him into the University a wide and exact knowledge of the extraction and refining of metals, of the management of metallurgical establishments, and of the economics of metals that he had gained in long and successful professional experience. He entered upon his teaching career with vigor and wrought success in that as in previous undertakings. Retiring while in full vigor, he carries with him into his activities and recreations, the cordial best wishes of his colleagues and his many friends.

The more important subjects that have been studied this year in the laboratories of the Department are: by Professor William Campbell and Mr. V. B. Scalise, the structure of

electric welded thin wall steel tubes and the heat treatment of high tensile strength cast iron and certain aluminum bronzes; by Mr. G. R. Gohn, the production and corrosion resistivity tests on iron and chromium-molybdenum alloys in the solid solution area; by Mr. L. Sonneborn, addition agents for products of smooth deposit in cuprous electrolytes; by Mr. J. B. Buehler, production of malleable alloys of silverplatinum-bismuth for acoustic diaphragms; by Professor Kern and Mr. Morrill, electrolytic refining of white metal alloys and treatment of the anode residues; by Professor Kern, pyrorefining of white metal alloys by use of aluminum and iron; by Mr. K. N. Simpson and Mr. C. Reynders, direct reduction of ferro-chrome alloys from chromite ores; by Messrs. B. N. Stefandies and Josiah Baker, alloys resistant to pickling solutions; by Professor Kern and Mr. R. Rowen, potentials of copper electrodes, which was presented as a paper before The American Electrochemical Society. Professor Hall, Mr. D. A. Morris and Mr. E. P. Carney have been investigating the cause of certain behavior in finely divided metals, the production of finely divided copper by electrolytic processes, and the production of porous inorganic bodies by reaction with aluminum.

Three papers on the work done in the ore-dressing laboratory were published by the American Institute of Mining and Metallurgical Engineers, namely: "A Study of Differential Flotation," by C. R. Ince; "Elements of Operation of the Pneumatic Table," A. F. Taggart and R. L. Lechmere-Oertel; "Experiments with Flotation Reagents," by A. F. Taggart, T. C. Taylor and C. R. Ince. Additional research work on flotation was carried on by two of the mining engineering students and by Messrs. C. R. Ince and A. F. Knoll together with Professor Taggart and Professor T. C. Taylor in the Department of Chemistry.

Two new research rooms were equipped on the fourth floor of the School of Mines building. The most important addition to equipment was a high frequency induction furnace with necessary electrical apparatus. This furnace has already proven itself indispensable.

The Columbia College School of Mines, founded in 1864, was the first in its field in this country, and to that fact, no less than to the talented and devoted staff of its early decades, was due its preëminence and the preëminence of its alumni for so many years. Its staff has continued to be no less talented or devoted, but it is wholly improbable that any mining school in this country will ever occupy the outstanding position held by the Columbia School of Mines for many years. The vast change in distribution of population, of industry, and of education that has taken place since the early days of the School of Mines makes its position very different from what it was when the West was still undeveloped and drawing largely on the East for its men of special training in all fields and especially in mining engineering.

There are now in this country thirty-nine institutions, twenty-nine of these being state supported, offering curriculums leading to degrees in mining engineering or metallurgy. So well supplied is the country with schools of mining that if any one, or any ten, of them were to close, the remaining schools could readily and most cheerfully take care of all the students. In all the thirty-nine schools there appears to be a total of about 2,400 students of mining and metallurgy. Some of the state-supported schools seem to have come into existence more in response to local pride than to any compelling need, yet the view not infrequently expressed that the existence of so many mining schools is not economically or educationally justifiable has against it the fact that it is of advantage to have mining schools that are not too far out of geographical range of students who may wish to study in them. Since, for example, young men of Nevada have the Mackay School of Mines at the University of Nevada available to them at comparatively low expense, more of them can undertake a mining course than if they had to come to the Columbia School of Mines or even had only to go across one state to the University of California. On the other hand the argument that a school of mines is best located in the heart of a mining district is not sound. The student of mining should visit mines, perhaps work in them for short periods, but the knowledge and experience gained from the immediate contact with mining operation is distinctly not the type of knowledge for which he spends his years in an engineering school. It may better be argued that the student of mining engineering should endeavor as far as possible to put himself under those educational surroundings that will most supplement the influence of a mining environment, so that he may bring to his professional work, which will generally begin in a comparatively isolated community, experiences, interests and imagination that are beyond those current in the mining community itself.

Leadership among schools of mines will not again be attained by any school simply by excellence of instruction in the curriculum designed to give a standard professional training, or by fortunate environment of the school. Leadership will fall to those schools that make of themselves vital centers for the advancement of knowledge and of its applications in the fields of mining and metallurgy. It devolves upon the Columbia School of Mines, all the more by virtue of its commanding position in this city and in a great university, to be a center of research and of special knowledge, pursued by staff and students, that will be sought out not only by those who desire the standard training for the profession but also by those undergraduates, graduates, and others who seek special knowledge, or light on their own problems, or opportunity to develop ideas. It must be a place where fundamental problems relating to mining and metallurgy, whether economic, mechanical, geological, physical or chemical, are being vigorously and effectively attacked, where authorities on progress are to be found to teach and advise.

It was with these considerations well in mind that the problem of new appointments in mining and metallurgy, necessitated by the vacancies referred to above, was approached. A wide survey of possibly available men was made and with the assistance of an advisory group of alumni the following new appointments were decided upon and have been made or will be made by the Trustees: Thomas Thornton Read, E.M., Columbia, 1902; Ph.D., 1906, to be Professor of Mining; Philip B. Bucky, B.S. in Mining, University of Illinois, 1921;

E.M., Pennsylvania State College, 1926, to be Assistant Professor of Mining; Eric Randolph Jette, B.S., Franklin and Marshall, 1918, M.A., Columbia, 1920, Ph.D., 1923, to be Associate Professor of Metallurgy.

Mr. Read has since 1925 been the assistant secretary of the American Institute of Mining and Metallurgical Engineers and editor of its journal. His acceptance of the professorship means for him a return to educational work, in which he had experience at the University of Wyoming, Colorado College, Columbia University, and Pei Yang University. In editorial work he has had experience with the Mining and Scientific Press and with the Institute of Mining and Metallurgical Engineers. For seven years he held responsible positions in the United States Bureau of Mines, being successively chief of information service, supervising mining engineer and safety service director. This work has brought him many contacts with the mining industry and its personnel. He is the author of Recent Copper Smelting, Mineral Production and Resources of the Chinese Empire and of papers appearing in technical and other journals on a wide range of subjects relating to mining and metallurgy, more particularly as to economic features.

Mr. Bucky comes to us from an assistant professorship of mining at the Pennsylvania State College, where he has been since 1924. Before taking a teaching appointment he had had professional experience in both metal mining and coal mining, and in his recent summers has visited many mines in this country and Europe. His interest is chiefly in methods of mining.

Mr. Jette has been trained as a physical chemist and has been Associate Professor of Chemistry in New York University, going there from an instructorship in chemistry at Columbia. He has proven himself a vigorous investigator. His appointment has been made because many of the fundamental problems of metallurgy require for their solution the kind of physical-chemical knowledge in which Mr. Jette has trained himself. His interest in metallurgy is not new. While he was a student here his work in that subject led his professor

to request that a position be made for him at that time in the Department of Mining and Metallurgy. Subsequently while Scandinavian Foundation Fellow for two years in Sweden and Denmark he spent much of his time on the study of the structure of metals by use of X-ray spectra. He is the author of nine papers on chemical subjects and one on metallurgy. With V. LaMer he published a translation and extensive revision of Eucken's *Physical Chemistry*. He has published also a book on oxidation-reduction reactions.

Professors Read and Bucky will begin their work with the next session. Professor Jette will spend the time until the Spring Session on leave of absence to visit metallurgical plants and laboratories in this country and in Europe. On the top floor of the School of Mines a new metallurgical laboratory with X-ray apparatus for metallurgical analysis and with other special equipment will be provided for Professor Jette's work.

At the February, 1929, meeting of the Trustees of the University the name of this school was officially changed to the School of Engineering. The adoption of this short and inclusive name, as recommended by the Faculty and by the special committee of alumni in its report of October, 1927, completes an interesting cycle of nomenclature. Beginning as the Columbia College School of Mines, its scope grew until in 1896 the School of Engineering, the School of Chemistry and the School of Architecture were differentiated in name from the School of Mines, the four schools remaining unified, however, under the jurisdiction of a single faculty called the Faculty of Applied Science. In 1902 the School of Architecture was set off to lead a separate existence. By 1905 the desire to indicate the real unity in the organization was marked by some attempts to use the name Schools of Applied Science, to correspond with the name already given to the Faculty. This was done without change in the University statute, which appears to have been unchanged from 1896 to 1929 in specifying that the Faculty of Applied Science should have charge of the School of Mines, the School of Chemistry and the School of Engineering. Schools of Applied

Science was not a popular name with the alumni, particularly those who felt it a mistake not to hold to the traditional School of Mines title, and since 1907 all the Announcements and other publications have borne the name Schools of Mines, Engineering and Chemistry. This name for the school was rather cumbersome and the chemistry part of it had become inexact and even misleading, since the advanced work in chemistry is chiefly under the Faculty of Pure Science, only the chemical engineering curriculum being conducted under the Faculty of Applied Science. Hence it was with satisfaction that the Faculty received the recommendation of the committee of representative alumni that the simple and adequate name be adopted. Since it is obviously desirable to preserve the name School of Mines, for the part of the School of Engineering that deals specifically with mining and with metallurgy, the revision of the University Statutes providing for the new name also provides that the work of the Department of Mining and Metallurgy shall continue to be known as the School of Mines.

On recommendation of the Faculty the name of the Faculty was also changed in February to the Faculty of Engineering. This change of name does not of itself necessitate any change in the membership. It does, however, raise the question as to the desirability of some reconstitution of the Faculty. logical constitution of the Faculty of Engineering would be the professorial officers in each of the several departments of engineering together with those professorial officers of such departments as mathematics, chemistry, physics and geology and mineralogy who are in charge of instruction for engineering or pre-engineering students or are concerned with these students administratively. At the present time there are a number of professors who still have to carry the obligations of membership in the Faculty of Engineering who do not now give instruction to engineering students or come into contact with them administratively. What actually happens frequently is that in such a department as that of Physics or Chemistry a member of the staff may for a while be mainly concerned with the teaching of engineering or preengineering students but later he may become occupied wholly

with advanced instruction for graduate students and with research and be entirely disassociated from the work of the School of Engineering. The obvious suggestion is that hereafter assignments of seats in the Faculty of Engineering to members of other than the strictly engineering departments might be made for a term of years and reassignment made only in case the professor continues his actual educational connection with the work of the Engineering School.

From time to time in these annual reports occasion has been found to note on the one hand the high quality and large quantity of materials testing, and of investigations of the strength and other properties of materials by the testing laboratories of the Civil Engineering Department, and on the other hand to urge the provision of more adequate quarters in which to do this work and much more work of this kind that a laboratory of proper size and construction would permit our undertaking. Moreover there is great need in this city of a materials testing machine of large size and large load capacity. Early in 1929 it appeared that an arrangement might be effected under which a one-million-pound capacity testing machine for both tension and compression tests could be immediately secured if a suitable building could be erected. Although it developed later that this machine could not be secured after all, consideration of the opportunity before our testing laboratories had in the meanwhile been stimulated and the Trustees of the University had responded promptly to a recommendation of the Committee on Buildings and Grounds by authorizing the construction on the Green at 120th Street near Amsterdam Avenue of a building for a testing laboratory. This authorization has not become effective because the large testing machine could not be obtained. At present an effort is being made, led by Mr. Milton Cornell, President of the Alumni Association, to secure money with which to obtain a much larger testing machine, one of at least two million pounds load capacity, so that the construction and equipment of a new laboratory may be assured. It is hoped that the efforts to this end may soon be successful in reaching the goal.

The building which it is proposed to erect, is to be the first portion of a building symmetrical with the Physics Laboratories. The construction of four stories of one end of a building like the Physics Laboratories will provide admirably for testing laboratories, with level access from 120th Street. The foundations and the steel work are to be designed as for the completed twelve-story building and a temporary roof provided.

On the afternoon and evening of Friday, April 26, one hundred and twenty-five boys from sixty-three high schools and preparatory schools in New York City and the surrounding region were entertained by the student Engineering Society. These school boys had been selected by the heads of their schools as boys having some interest in engineering and scientific work and it was the object of the Engineering Society to give their guests a clear idea of some of the features of engineering school work and student life. As in former years the expense of the entertainment of the school boys at the dinner and otherwise was met by contributions obtained from the Alumni Association.

Robert Mathew Raymond, Professor of Mining since February, 1916, died on August 23, 1928, at Prescott, Arizona. He had gone there for a vacation hoping that the climate would be beneficial for a sometimes painful but not dangerous rheumatic ailment. Another serious illness developed so rapidly that he lived only a few days after its onset.

A graduate of the University of New Brunswick, he had worked in mining for four years before he came to the School of Mines at Columbia, from which he was graduated in 1889. He advanced steadily in his profession, filling responsible mining positions in Montana, in South Africa, in Australia, in China and for many years in Mexico where he became manager of the great El Oro gold mine. In turbulent times in Mexico he displayed extraordinary capacity to deal wisely and effectively with troublesome and dangerous situations.

To his professorship at Columbia he brought his strong and lovable personality and a keen interest in the use of education for the development of upstanding, resourceful character. His own experience had been so wide and his life so much that of a man of action that he taught his students more through

his personal contacts with them, his interpretation of the life of an engineer and his unfailing interest in their personal progress, than through routine classroom instruction. Though he had already announced his intention to retire from his professorship in a few months, his zeal for the School of Mines had not lessened and he was actively and enthusiastically engaged in planning forward steps in the School of Mines and in seeking the best men to be appointed in his place and in the other vacancies.

An engineer of high achievement, a teacher by example as well as by word, a Christian gentleman, Robert Raymond has left for us a memory that uplifts the heart.

Respectfully submitted,

George B. Pegram,

Dean

June 30, 1929

FACULTIES OF POLITICAL SCIENCE, PHILOSOPHY, AND PURE SCIENCE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

Sir:

As Dean of the Faculties of Political Science, Philosophy, and Pure Science, I have the honor to submit the following report for the academic year ending June 30, 1929:

The total registration under these Faculties, including the Summer Session of 1928 and students registered primarily under other faculties, was 3,810 as against 3,744 for the preceding year. The registration for the Winter and Spring Sessions alone was 2,973 as against 2,932. The number of new students was 1,295 as against 1,335. The number of degrees conferred was as follows: Master of Arts, 623 as against 629; Doctor of Philosophy, 190 as against 136.

The year I entered this office, 1912-1913, the total registration was 2,241. This figure, however, is too large for comparison with the current year, because it includes candidates for the Master's degree normally registered under other faculties. It should be reduced to approximately 2,000. Since then the registration has almost doubled. This doubling of the registration gives, however, an inadequate idea of the growth in numbers for which these Faculties have been called upon to provide. The war upset the validity of statistical comparisons between movements before and after it. Besides this, between 1912 and 1918, there were a number of administrative changes and changes in the requirements for degrees that have had an important bearing on the figures. The year 1918-1919 is a much more adequate basis for com-Then the total registration was 1,261 and the registration for the Winter and Spring Sessions alone, 774. Thus the registration has since trebled if the total registration

is counted, and increased almost fourfold if the Winter and Spring Sessions alone are counted. So far as the number of degrees is concerned, I have frequently compared it with changes in the registration, and find the percentage fairly uniform. Absolutely considered, the number of degrees is imposing on Commencement Day, but relatively considered, it rarely touches a third of the total registration. There has been a slight decrease in the number of Masters of Arts, and a slight increase in the number of Doctors of Philosophy. The indication is that the increase in registration has not affected the quality of the degrees and this indication is verified by a study of cases.

I have repeatedly reviewed the situation which is presented by the number of degrees when compared with the registration, in the hope of coming to some just appraisement of it. I always reach the conclusion that I have expressed in other reports, namely, that social and economic factors have made of the Graduate School both an opportunity for continued study by college graduates and an opportunity to secure University degrees which imply advanced instruction and research. It is this double opportunity which defines the major problems of the School. Attempts to define the requirements for degrees in terms of the quality of the registration and by quality I mean collegiate preparation-result in standards which are unacceptable to the Faculties. example, when the requirement for the Master's degree was defined in terms of the completion of a stated number of courses representing a year's work, dissatisfaction with the results steadily led to a revision of the requirements in order that the degree might represent something more definite as a scholarly achievement. Passing courses is an art in which students may acquire much skill without acquiring much learning. On the other hand, attempts to control the registration in terms of the requirements for degrees have generally impressed the Faculties as impracticable. Their experience fortifies the conviction that admission requirements defined with reference to subsequent specialized study would not, in view of the variety of preparation represented by the Bach-

elor's degree, result in a selection of the most promising stu-The Faculties have, consequently, trusted to the selective power of the requirements for degrees rather than the modification of the requirements for admission, to give them that body of students to which particular attention should be paid. This policy is, I think, justified by the situation. The opportunity which the Graduate School affords for continued study, although it involves the care of a registration much in excess of legitimate candidates for degrees, is a very genuine and, socially, a much prized opportunity. Its value in strict academic terms is, as I have pointed out in other reports, highly equivocal. It creates the necessity of selection if a high standard of scholarship is to be maintained. Yet it represents a contact of the University with society which is popular in the best sense and which exerts a constant pressure upon academic traditions to keep them conscious that society as well as scholarship has its claims upon a university.

Yet it has to be admitted that our increasing registration is a menace to scholarship. Selective principles may be expressed in words and define what is desired, but, like all similar aspirations after the good, they require administration. Faith and works still provide in this human life of ours the contrast between justification and salvation. Selected students are not selected by decrees, but by the happy fate or deliberate manipulation that places them in the way of grace. But there is no need to appeal to philosophy when departments of instruction are repeatedly calling for assistance in their difficulties. More instruction is demanded. It is of a type different from that which professors in the Graduate School normally give or should be expected to give. In view of their work it is elementary; in view of the student's preparation it is advanced.

What our experience makes clear is the need of an initiating discipline in the aims, methods, and spirit of scholarly study. The need is real. I am tempted to comment upon it as an illustration of one of the consequences of current educational practices, but let it go with the remark that students come to us with the personal attitude toward learning more highly

stimulated than the impersonal. Their emotional confidence is often ill-adjusted to their intellectual maturity. This is more conspicuous in the humanities, as we call them, than in the natural sciences, for in the latter subjects it is not easy to take the personal attitude unless one happens to be something of a philosopher, and one cannot go to the far things in science with a broken road behind him. In the social sciences and in art, however, the imagination can bridge chasms without knowing it. There is real need of the kind of initiating discipline I have mentioned. In practice, this need has already taken shape in a demand by several departments for more officers of instructorial grade who will meet with groups of students and help them to get acquainted with the proper intellectual geography. The Department of English and Comparative Literature took the lead in this movement and has organized an instrumentality for adjusting students early to the demands that will be made upon them later. Here there is a discipline which both selects and defines. History and Economics are planning something similar. Chemical Engineering, because of the character of its research work, has felt the need of more preliminary orientation. The demand for instruction of the type here outlined is sure to grow.

This demand can, I think, be urged and justified on other grounds. The colleges of the country, through one of their organizations, have addressed graduate schools in the interest of securing better prepared teachers for undergraduates. opinion prevails that the graduate school does not turn out good teachers, and the suggestion is made that the school provide courses in education and make them, possibly, part of the requirements for degrees. Here, again, the temptation to indulge in educational comment is strong. If four years in college and from two to three years in a graduate school do not turn out a good teacher-granted that there is material for one—the implications touch the college fully as much as they do the graduate school. Something is wrong with the intellectual atmosphere on both sides of the line, or there is some difference of opinion about what good teaching amounts to. The colleges may blame the graduate school for the teachers it sends them, but the graduate school may blame the colleges for the material they provide it. Mutual fault-finding is, however, not helpful. Let it be granted that the fledgling Ph.D. makes a poor showing when perched before a group of undergraduates. It is to be expected. The reason is, I suspect, not that he lacks courses in education, but that he lacks experience. What the colleges can very properly complain of is this lack of experience and that they are required to make it good at their own cost. The future students, who by and by may be competently taught, are not compensation for those who presently suffer.

It is a too common practice to set the young to teach the younger. Enthusiasts have found merit in it, claiming that there is then better understanding of what the young are. There may be closer sympathy, but there certainly is not better understanding. I cherish the acute remark once made to me by an undergraduate who was studying philosophy under the guidance of a recent Ph.D. of one of our large universities. "We all like her and she knows an awful lot, but the trouble is that we don't understand what she's talking about and don't know enough to ask the questions which would help to make things clearer. She ought to have been set first to teach graduate students. They might have brought out what's in her. Then she could teach us better." I have called the remark acute. I might call it profound. Teaching with authority is something different from authoritative teaching. The doctor's gown goes naturally with the latter because it is a cloak for an inferiority complex. The wearer. in self-defense, makes his own questions the important matter. It would be a boon to him to be subjected to questions of others who are already far enough along to have found out that they have questions of their own to ask. That would lead him to discover whatever authority there is in him.

As I see it, then, the kind of discipline which the beginning graduate student needs is the kind of discipline which the beginning teacher needs. They go well together and to the profit of both parties. And I entertain the conviction that an instructor with an initial experience of this kind will make a

far better teacher of undergraduates than one without it. He will have discovered some of the idiosyncrasies of human nature in direct contact with a subject matter to be learned by those who want to learn it, and discovered them more effectively than he is likely to do from a course in psychology. More instructors of the kind now asked for may thus render a service to education at the same time that they meet a need of the graduate school. They will grow under the guidance of their elders and in sympathetic give and take with their near contemporaries. They may learn what teaching with authority is. They may find out that it is something very different from opinionated instruction rejoicing in its own echoes.

Such a service to education is very far from an illegitimate demand on the graduate school. I cannot admit that the training of teachers is its business, but I must confess that something is wrong with it if good teachers are not a consequence of its existence. With this confession, the colleges may be left to make or find their own. The graduate school should not wait for this. The top of education ought not to quarrel with the bottom so long as it produces those responsible for what the bottom is like. It is a fact that the colleges send to the graduate school students who are more intellectually immature than they ought to be. It is also a fact that the graduate school sends to the colleges teachers who do much to prolong this immaturity. Just to let the facts look invidiously at each other is not inspiring.

It is, in general, the problem of instruction which, as I see it, is the presently insistent problem of these Faculties. Indeed, it has become *the* problem of education. There now exists a substantial body of knowledge gathered by psychologists, educational administrators, and statisticians in terms of which we have a far better understanding than before of human nature as displayed in both teacher and student, of the working of entrance requirements, of the value and character of examinations, of the correlation between preprofessional and professional studies, and of what is achieved, at least in terms of information and to some extent in terms of

subsequent performance, by the working of the curriculum on the student mind. This knowledge has been used chiefly for purposes of selection, vocational guidance, and placement. It has been converted into a providential supervision of student personality, into a regulation of what is conceived to be good for it as individually exhibited by the application of more or less standardized tests. Too little attention has been paid to that which can vitalize this machinery. The subjects of learning have been too much neglected. In seeking the student's good, in exalting the personal emphasis, we tend more and more to make of education something else than intellectual discipline. This may be justified in the case of children, but I cannot believe it to be justified in the case of youths and adults. I must believe—and who can thoroughly read Plato without believing it—that there is a point in the educational process where subjects become vastly more important than anybody who studies them, when the question of what is good or bad for a person becomes absorbed in the steady and disillusioned contemplation of the way in which forces and ideas work in this complicated world. Somewhere in the scheme of education, its god should stop providing and begin to see. Sometimes I fear that in paying so little attention to the bearing of instruction on such an end, we have made that somewhere so remote that education produces mainly oilers of the world's machinery.

I admit that such comments as these may be construed as an exhibition of what might be called my own philosophy. But is it anybody's own philosophy to claim that there is a point where mathematics becomes mathematics; economics, economics; history, history; science, science; philosophy, philosophy; art, art; morality, morality; religion, religion; and at that point, man begins to see these things less as materials for his good and more as forces which shape his destiny? I am not saying, "these things for their own sake," for I think that silly, but these things for the sake of their inevitability. "Beyond good and evil" is taken by many minds to mean beyond responsibility, and freedom to be masterfully what they call themselves. It is, however, the one region in

which one's attempted providence for others can hope to discover what it is about and in which the teacher can discover whether he is teaching mathematics or a child.

For many years, the privilege has been extended to students registered primarily under professional faculties to register under these Faculties also, and to apply part of their professional courses toward satisfying the requirements for the degrees of Master of Arts or Doctor of Philosophy. I have found the reasons for this privilege always a little obscure. The chief reason in the beginning was, as I have understood, to induce professional students to supplement their work with non-professional studies. The operating effect of the privilege, however, has been to induce students to be candidates for two degrees when they should be candidates for one and to make the supplementary degree in their cases of less significance than the degree would be under regular conditions. The administration of the privilege has been one of the most irritating experiences of my office. The Faculties, with ironic wisdom, have left the matter to the Dean, whose own wisdom in this case has never surpassed the device of rubber stamps in constant need of change. I have suffered from the charge of being unreasonable and have been driven to the defense that unreasonableness is to be expected in the administration of an unreasonable privilege. Happily, my successor will not have this embarrassment. The Faculties have discontinued the privilege by legislative action during the current year. One of the curious things that went along with this departing nuisance was the refusal on our part to recognize professional degrees as having value for a prospective candidate for the degree of Doctor of Philosophy. This itself was an inducement and something of a reason for professional students to try to get a non-professional degree by the way. The Faculties will now recognize the degrees of specified professional schools as entitling their holders to a year of residence toward the Doctor's degree. This is evidently just, since the students involved normally pass to research work in fields related to their professional studies and for such work their previous experience is the defined preparation.

The discontinuance of six University scholarships and the increase in the number of University fellowships from twelve to eighteen have been welcomed by these Faculties. should probably continue to have a few scholarships. doubtful thing about them is the fact that the stipend rarely relieves the holder from the necessity of seeking employment of some kind in order to maintain his residence here. Our fellowships, however, now carry a stipend large enough to warrant a rigid observance of the rule that their holders are not free to accept remunerative employment. We need more fellowships. Our students are not preparing for what can be called a gainful occupation. The money spent on their education, viewed as an investment, is far more a social than an individual matter. Only late in life can they expect to recover what they have spent. There are now far too many of them distracted by immediate and impending economic pressure.

Students of fellowship grade are often appointed to positions as junior officers and thus enabled to meet their expenses. The motive behind this practice is creditable, but I am convinced that the practice is bad. It gives to the individuals involved the status both of student and officer. The interplay of the obligations of the former with the privileges of the latter is a fruitful source of embarrassment. The practice almost invariably operates to prolong, sometimes to very unreasonable length, the period of study for a degree. The duties of the officer naturally take precedence of the duties of the student, so that the officer may be commendable and the student censurable. I see no good in the practice except the retention with us of students of genuine promise who would otherwise be compelled to leave or engage in other work even more distracting. This good is, however, of the necessary evil kind. More fellowships and a reasonable restriction of the length of service of junior officers would relieve the situation. We should have more of the best students devoting their whole time to their studies and more junior officers fully entitled to the privileges of their position. An early discontinuance of our present practice is, to my mind, wholly desirable.

The following four Cutting Travelling Fellows were selected

out of a total of eighteen eligible candidates: Carl F. Bayerschmidt, B.A., with honors, Brown, 1926, M.A., Columbia, 1928, who is working with Professor Barnouw on an edition of a Low German history Bible; Jacob J. Beaver, B.S., Union, 1915, M.A., Columbia, 1916, Ph.D., 1921, Instructor in Chemistry, who will undertake special research in physical chemistry; Henry A. Ladd, B.A., Amherst, 1918, B.Litt., Oxford, 1922, candidate for Ph.D. at Columbia, and Instructor in English, who is preparing an intellectual biography of Ruskin; Thomas P. Peardon, B.A., British Columbia, 1921, M.A., Clark, 1922, candidate for Ph.D. at Columbia, and Instructor in History in Barnard College, who is engaged in a study of the transition in English historical writing in the eighteenth and early nineteenth centuries.

Last year I sent you as a supplement to my report a digest of the reports received from Cutting Fellows since the academic year 1922–1923, when the method of selection was changed. I add here the following statement with regard to the Fellows who have been abroad during the current year:

Ray H. Crist graduated from Dickinson College in 1920. He received the degrees of M.A. from Columbia University in 1922 and Ph.D. in 1927. At the time of his appointment to the Cutting Travelling Fellowship, he was an instructor in Chemistry in Extension at Columbia and will return to continue his teaching here during the year 1929-1930. Dr. Crist's investigations in physical chemistry were carried forward at the University of Berlin, the Kaiser Wilhelm Institut and the University of Leipzig. The Universities of Göttingen, Bonn, Heidelberg, Utrecht, Oxford and Cambridge, London and Edinburgh were also visited. The particular research undertaken was concerned with the mechanism of the reaction between hydrazine and monochloramine. A study of the reaction of hydrogen and oxygen while under the influence of a magnetic field was begun, but could not be completed in the vear.

Warren E. Gibbs received the A.B. degree from the Southern Methodist University in 1920 and the M.A. from Columbia in 1922. When awarded the Fellowship he was an Instructor

in English in Columbia College and returns to that position for the year following. Mr. Gibbs spent the year in London in the search for unpublished material relating to the life of Samuel Taylor Coleridge. He had access to private collections and to letters in the hands of heirs of Coleridge and certain of his associates. He worked also in the British Museum. When the editing is complete there will be from 450 to 500 pages of Coleridge's "Literary Remains."

Edwin B. Matzke graduated from Columbia College in 1924. At the time of his appointment to the fellowship he had matriculated for the degree of Doctor of Philosophy and was assisting in the Department of Botany at Columbia. He had already undertaken the researches which were continued in broader scope at the Kaiser Wilhelm Institut under the direction of Professor Correns. The subject of investigation was the morphology of the genus Stellaria, dealing particularly with variations in the flowers of Stellaria media. Results of the study are presented in an article which has been submitted to Plants for publication. In addition, a new piece of genetic investigation was begun which will require several years to complete. Lectures were attended at the Hygienisches Institut of the University of Berlin and a number of universities and botanical institutes in Germany and England were visited. Mr. Matzke has been appointed Instructor in Botany at Columbia for the year 1929-1930.

Cyrus H. Peake, B.A., Northwestern, 1922, M.A., Columbia, 1925, was appointed Lecturer in the Department of Chinese at Columbia for the academic year 1927–1928 with leave of absence for study in France. In order to enable him to visit China and continue his studies there, he was awarded a Cutting Travelling Fellowship for the following year. In July, 1928, Mr. Peake attended the Congress of Orientalists at Oxford, England, as official delegate of Columbia. Reaching Peking in October, he spent five months studying the spoken Chinese language and carrying forward research on a doctoral dissertation on "The Development of Modern Education in China." Mr. Peake visited rural schools and met a number of educators, editors, scholars, provincial authorities, and

cabinet ministers. Libraries in Shanghai and Nanking were also visited. Before returning to America, Mr. Peake spent three weeks in Japan where he interviewed men at the Foreign Office and scholars in the field of Chinese history and culture. He has been reappointed Lecturer in Chinese at Columbia for the academic year 1929–1930.

At the conclusion of the year, Professor Gerig retired as administrative officer of the Department of Romance Languages and Literatures in order to give all his time to his professorship. His retirement is to be followed by an experiment which will be watched with interest. It is an experiment in decentralization. Commonly, in our universities, departments of Romance have grown up around French studies as their center. It is natural enough to regard French, Italian, and Spanish as members of one linguistic group. This, has, however, disadvantages. It is apt to restrict the affiliations of three great literatures too much to their mutual contacts and interests, and it is apt to produce what may be called the Romance habit of mind. This habit is easier to detect in practice than to define in words. It is a variation of that sectarian habit which so readily exhibits itself when proficiency in a foreign language and the study of its literature are, at the same time, both means and end. When the acquisition of foreign languages is more of a polite accomplishment than an obvious routine, the study of foreign literatures rarely frees itself from the suspicion of being something overrefined and esoteric. Working with a foreign language and working in it, are things so different that some intellectual distortion is the likely consequence if the latter is made too equivalent to the former. The study of foreign literatures suffers from it, even when each is studied for the sake of its ideas and their historical connections. The suffering is intensified when two or three are gathered together for linguistic reasons which restrict the breadth of outlook each might otherwise have. Languages are very particular. We have decided to acknowledge the fact administratively. Professor Muller has been made responsible for the general conduct of French studies; Professor Bigongiari, of Italian; and

Professor Onís, of Spanish. In view of the history of the Department and of the general university practice of having departments of Romance Languages and Literatures, it was inadvisable to have wholly separate departments in all respects. In matters which imply, through custom and usage, a degree of unity, these three professors will act as a committee with Professor Muller as chairman.

This is an experiment. It has been undertaken with general approval and with considerable confidence on the part of those immediately affected by it. There is promise of greater concentration and effectiveness. There is promise, too, that French, Italian, and Spanish will now seek to enlarge their affiliations beyond the limits which a too closely knit organization imposed upon them. Accommodations which have hitherto been usual, but of doubtful value, and which so consumed the time of Professor Gerig that his own work severely suffered, will now be matters of much less importunity. Individuals should have greater freedom to pursue their own lines of work unhampered by the claims of an extraneous obligation. It is an experiment worth trying.

I think, however, that, following upon this decentralization, attention should be directed to a centralization of a different sort. What I have said about the study of foreign languages and literatures involves something quite different from administrative organization. It involves an altered intellectual attitude. It calls for an educational reformation. This should properly begin in our schools and colleges, but it is not likely to begin there unless our graduate departments take the lead in insisting that the great literatures of the world should be studied with as little embarrassment as possible arising from the fact that they are historically displayed in different languages. To group French, Italian, and Spanish together as an educational unit is surely no grosser affront to literary intelligence than to put English or German in isolation. In the field of literature, languages should be taken for granted and not be allowed to be the factor which determines whether one is to study the literature of one people as against that of another.

The fact we face is, however, this: Students who enter the Graduate School are so deficient in ability to read foreign languages generally—often in spite of several years spent in the study of them—that, if they take up literature, they take up the literature of the language they know best. The only reason I can imagine why they cannot read is that they have not been taught to read. They have been taught something else. This something else may be valuable, but the value, clearly, is not defined in terms of ability to read a foreign book. The habit of reading is delayed until other things are attended to and then it is usually too late. Now there is good evidence that the average student can acquire a good reading knowledge of almost any foreign language in two years at the most, often in much shorter time. Learning to read a language is usually a delight, but it is rare that students find delight in the elementary language courses which usually prevail. The reading habit, once acquired, is not readily abandoned. One who can read Balzac in French, will not want to read him in English. But how many college students there are who have the notion that the habitual reading of other languages is an accomplishment reserved for their teachers, possibly, or for those of their fellows who have taken many courses! Surely reform is needed here. Our graduate departments can take the lead in the matter, if they will progressively break down their too tight departmentalizations and encourage more of their students to make good the defects of their preparation. is not beyond the wit of our instructors to find ways and means of bringing this about. The ideal, as I see it, is a Faculty of Letters and not departments of foreign languages.

The Special Research Fund has been used to assist individuals in the following Departments: Anatomy, Botany, Chemistry, English, Fine Arts, Geology, German, History, Law, Metallurgy, Pathology, Physics, Psychology, Spanish, and Zoölogy. Allotments have been spent for research assistants, technical artists and technicians, experimental animals and plants, photographic reproductions, technical apparatus, purchase of books, photostats, supplies, and travel to secure material. Publications growing out of these researches include

a volume entitled *Guide to the Sources for Early American History in New York City*, thirty-five articles in scientific journals, one newspaper article, one bibliography, two abstracts, three medieval records translated and edited, and three addresses before scientific or learned societies. In addition to these, a volume of reports, a manual with drawings, two pamphlets and fourteen articles for publication in scientific papers, are in process of preparation. I send you as a supplement to this report a digest of the reports received from recipients of allotments from this fund.

The following scholars from other places have contributed to our fellowship during the current year: Payson J. Treat, Professor of History, Stanford University, Visiting Professor of History; James Gray, King's College, Cambridge, Lecturer in Zoölogy; Louis Cazamian, Professor of English Language and Literature at the Sorbonne, Visiting French Professor of English; Clarence I. Lewis, Associate Professor of Philosophy, Harvard, Visiting Professor of Philosophy; J. J. L. Duyvendak, Professor at Leyden University, Visiting Professor of Chinese; George Rowley, Professor of Art, Princeton, Visiting Lecturer in Chinese Art; H.D. Griswold, Professor of Philosophy, Forman Christian College, Lahore, India, Visiting Professor of Hinduism; Alfredo Colmo, Judge of the Court of Appeals, and President of the Instituto Cultural Argentino Norte-Americano, Visiting Professor from the Argentine.

Leaving this office, after occupying it for sixteen years, I carry with me a vivid picture of Columbia University, a picture I could not otherwise have seen. I have had a good deal to do. This has been a consequence, not of duties imposed upon me, but of what the University is. What I have had to do I have never done reluctantly so long as I could indulge in the conceit that I did it well. But teaching is my dearest interest. And it became increasingly clear to me that I could not keep up that interest and at the same time do the work of this office with proper attention. So I placed my resignation in your hands. You offered me every assistance I could ask. Professor Fife, as Associate Dean, generously

shared the administration with me. But I may as well admit that for me to remain Dean was to want to be Dean, to keep on doing, with few exceptions, just what I had been doing—I will not say, have the glory of it, but have the sense of it, the sense of that intimacy with the University which one gets in such a position. Relief and not assistance was indicated by my temperament and situation. I thank you for letting me have my way. I take with me, in my going, the memory and, I hope, the advantage of a profitable experience and, as I have said, a picture of the University.

My memory runs back to the first days in the office when it was incumbent upon me by legislation to meet the new applicants for admission and approve their projected studies. I had in my mind an idea of what a university ought to be; face to face with these students I was to learn what it is in the minds of those who seek it. Ever since, there has been some variation of that lesson, some insistent illustration of the difference between a university conceived and a university demanded. This is, of course, what life generally is like—an adjustment between dreams and realities-and does not serve to define a university as a special case. That definition, granted that the business of a university is first of all to support and impart learning, is to be found in the principle which influences its performance. Columbia has let its location be that principle. Broadway, New York, runs through its campus. Its imagination has responded to that fact, in jest and earnest, conscious of what is bizarre, of what is the passing show, of what is delightful, of what is powerful, and conscious that the street begins and ends far away, whether the far away is a matter of the earth's geography or of that uncharted land of human necessity. One can leave the street to find. on entering the University, some effort somewhere to bring the spirit of a university to bear upon the currents of life he may have thought he has left behind. He will find plenty of administrative machinery which creaks and groans at times and plenty of red tape wherewith to hang himself and others, but he is pretty sure to find a door which opens to the knock of any real claim. To be all things to all men without letting

all men define our standards—that seems to be the consequence of our location.

My experience of the University has been under your leadership. If our location has been a voice that has been heard, the syntax which governs its translated language has found an idiom. The University must have the the underscored. Should I enumerate the faculties, the boards, the committees, of which, by virtue of being a dean, I have been a member, I might afford for the unwary the spectacle of a remarkable man. These different assignments have not illustrated the diversification of my ability; they have illustrated the unity of the University. Deans and directors are expected to have something to say to each other. faculties and schools are expected to cooperate. This expectation has been far more than a moral hope. It has been a working fact. The sense that we are all, each from his own corner, administrators of a university, is something which it has become difficult to escape. This may sound like the description of a happy family. Be it said, however, that we damn each other cordially enough, but we must damn by the University if the curse is to have the proper sound. This atmosphere of unity in a common enterprise I must add to the picture I take with me.

I hope I may be permitted this sort of a valedictory. I might have bequeathed to my successor an agenda. Since I inherited none from my predecessor and received none from your office, I conclude that such a bequest is improper. There is irony in thinking of "my" successor. I hope I may not have one, else why should I have resigned? To the new man goes the welcome, and it goes with its integrity unimpaired to Dean McBain. I am happy to leave administration for teaching and shall be the happier in teaching because of the experience I have had. I leave the office very sensible of your confidence and friendship.

Respectfully submitted,

Frederick J. E. Woodbridge,

Dean

SCHOOL OF ARCHITECTURE

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As Director of the School of Architecture, I have the honor to submit the following report for the academic year ending June 30, 1929:

In view of the increasing importance and the widespread attention which is being given to civic development, I beg to recommend the establishment at Columbia University of a Department of Town Planning as soon as the necessary arrangements can be made.

In the large cities of the United States the streets are congested with traffic, the public business is hampered, the people are inconvenienced, and public safety is endangered.

The two elements of a city are buildings and streets with open spaces, and these elements must bear a certain proportion to each other for the proper conduct of the city's life.

Originally cities were planned for horse-drawn traffic of slow velocity, the buildings were low and people walked upstairs. Today tall buildings cover the same area and they house many more people who ride up in swift elevators and who, when they come down, fill the sidewalks to overflowing.

The motor vehicle has increased the traffic many fold, and the streets are crowded with swiftly moving cars. This creates a condition of danger to health and safety and greatly hampers transportation.

The steady increase of the population of cities adds to the difficulties, and no immediate prospect of abatement is in sight. When the enormous wealth of the country choked the circulation of money in the banks, large avenues for moving money and credits were provided by the Federal Reserve

Bank working with great banks for the easy handling of big business.

In like manner as we face the problem of congested streets, hampered public business, inconvenience of the people in the highways, and danger to safety and health, it appears that reorganizing the plans of cities is necessary to ease the condition of all the great centers.

In the splendid achievements in our other material progress, our city organization has been neglected. Chicago is moving in the direction of magnificent plans; ancient people built their cities in orderly arrangement; the Greeks so built the ruined city of Selinus on the shore of Sicily; Rome was a city of monumental plans; even in Yucatan we find ruins of a city laid out on a well-defined design; our friend, the honeybee, builds her city perfectly adapted to community life.

Good city planning involves defining the economic necessities of the community, the safety, health and rights of the individual; the good arrangement of circulations, areas and buildings; devising of a plan which will accomplish all of this, and in addition be a beautiful design.

The scientific phases of the problem can be determined by the analysis and reports such as those which economists, engineers, lawyers, and men experienced in government affairs have done for the Sage Foundation for the Regional Plan of New York City and its Environs. The design to embrace these in a practical and beautiful whole is now the monumental task for the civic designers.

It is for the training of men to do the plan itself that a Department of Town Planning is here proposed.

Organized education is the accepted route to success in the professions. The need of developing a fund of knowledge of city planning and for training practitioners of the art, suggests the advisability of founding a Department of Town Planning at Columbia University. Here are now established and available courses covering economics, law, engineering, sanitation, civic government, architecture, and related subjects, the substance of which bears on civic design. A creative Department of Town Planning appears to be the

necessary institution to centralize all the elements and give them reality and effect. Men of great attainment who could define the policy and advise on the instruction of such a Department are available, an organization has been outlined and room for a beginning can be arranged.

There were in the School of Architecture in 1928-1929:

Winter	Spring
Candidates for the Degree (all professional work)	88
Combined Course (combined with college) 26	24
Total	112
University Extension	351

Thirteen students in the School of Architecture were graduated with the degree of Bachelor of Architecture and one with the degree of Master of Science in Architecture.

The McKim Traveling Fellowship with a stipend of \$2250 was awarded to Mr. Carl Birger Troedsson. The jury for this award was composed of Messrs. Harvey W. Corbett, Otto Faelten, William Lamb, William Kendall, and Professor Frederick V. Murphy. President Harvey H. Davis and Vice-President James Creese of Stevens Institute of Technology were visitors, in view of the fact that the problem was "A Group of Educational Buildings for Stevens Institute."

The prizes were awarded by Stevens Institute for the students who were placed second and third in the competition. Mr. Harry Maslow was placed second and won the First Prize of \$125; Mr. Henry A. Grant was placed third and was awarded the Second Prize of \$75.

In public competitions Mr. W. Wallace Beisheim was awarded the Henry Adams Prize for an archæology problem of "A Bell Tower" issued by the Beaux-Arts Institute of Design.

Mr. Henry Grant was winner of two design sketches: one a "Cover Design for the Beaux-Arts Ball Program," offered by the Beaux-Arts Ball Committee, and the other, the Harry Allen Jacobs Prize, "A Memorial."

The Alumni Medal, awarded annually at Commencement by the Alumni Association of the School of Architecture to the student who has maintained the highest standard in design in the two academic years preceding, was awarded to Mr. W. Wallace Beisheim.

The American Institute of Architects Medal, awarded annually at Commencement to the student who has maintained, during his entire course, the best general standard of scholarship in all departments, was bestowed upon Mr. Carl Birger Troedsson.

During the Spring Session the School was asked to conduct the Sixteenth Southern Intercollegiate Architectural Competition in which North Carolina State College, Rice Institute, University of Florida, Georgia School of Technology, Agricultural and Mechanical College (Clemson College), and Tulane University took part. This competition is an important annual affair among southern schools, and we were glad to assume the responsibility of writing the program, arranging the details, and conducting the judgment.

Mr. Harvey Wiley Corbett, architect, gave a series of five lectures to the students, which were interesting and instructive. The subjects were the following: "The Architectural Student," "Architecture as a Profession," "Architecture as a Business," "Architectural Aspects of Town Planning," and "The Meaning of Modern Design."

The presentation of the Hamlin Memorial cases took place on Commencement. This memorial is in the form of a beautiful range of display cabinets of carved walnut, glass, bronze and marble, located on the top floor of Avery Hall, Columbia University. It was dedicated by the Alumni Association of the School of Architecture and all former students of Professor A. D. F. Hamlin in recognition of his long and loyal service of over forty years in the School.

There were during the year two students from the School as Fellows in Architecture in the American Academy in Rome —Messrs. C. D. Badgeley and C. C. Briggs.

Handsome cases for the display of designs and models were installed in the corridors of Avery Hall, made possible by the special appropriation by the Trustees for that purpose. The School had a successful year, the Faculty worked with fine spirit and we believe there was a general advance in accomplishment.

Respectfully submitted,
William A. Boring,

Director

June 30, 1929

SCHOOL OF JOURNALISM

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

Sir:

I have the honor to submit the seventeenth annual report of the School of Journalism.

The registration for the year 1928-1929 was as follows:

7008		lidates Vegrees	Candidates for Certificates		Non- Matriculated	
1928–1929	Men	Women	Men	Women	Men	Women
First Professional Year Second Professional	34	36	5	I	4	2
Year	31	26	2	I	О	О
Graduate Students	5	13	0	О	О	О
Totals	70	75	7	2	4	2

The first professional year in 1928–1929 included 39 men and 37 women as against 39 men and 31 women in the previous year. Of these, 10 men entered from Columbia College, 2 women from Barnard, 3 men and 2 women from University Extension—17 in all from the University; the remaining 59 had received their college training in various institutions including the following: Adelphi, Carnegie Institute of Technology, Cedar Crest College, Colgate, College of the City of New York, College of the Ozarks, College of the Sacred Heart, DePauw, Dickinson, Duquesne, Evansville, Georgetown, Hunter, Louisiana State, Millsaps, New Jersey College for Women, New York University, Radcliffe, Randolph-Macon, Royal Military College, Salem College, Smith,

Trinity (Washington, D. C.), University of Chicago, University of North Carolina, University of Pennsylvania, University of Virginia, University of Wisconsin, Vassar, Wellesley, William and Mary, and Yale.

Of the 76 undergraduates in the first year, 25 reported their home residence as being in New York City. The remaining 51 came from the following: Arkansas, California, Connecticut, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Missouri, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin, Canada, and Japan.

The figures given above call for no comment except on one point. There has been a small but steady increase in the number of students and in the number of graduates. In 1927, 7 men and 4 women took the M.S. in Journalism; 24 men and 17 women took the B.Lit.; 3 men and 1 woman took the Certificate of Proficiency—34 men and 22 women altogether. In 1928 the figures were: M.S., 5 men and 8 women; B.Lit., 30 men and 17 women; Certificate, 4 men and 1 woman; totals, 39 men and 26 women. This year, M.S., 4 men and 7 women; B.Lit., 22 men and 25 women; Certificate, 2 men and 1 woman; totals, 28 men and 33 women. For the first time since the World War, we have graduated more women than men.

Of the 31 women students in the reporting and copyreading course, Professor Charles P. Cooper reports that 14 obtained employment in journalism, 2 in publicity, 3 in other occupations; "matrimony" accounted for 4, and the remaining 8 were either coming back to the School or did not find the kind of employment they cared to accept. Of the 26 men, 14 obtained positions on newspapers, 6 went into publicity, and only half a dozen had not obtained employment before classes stopped at the end of May. Out of 57 students, 19 women and 20 men—nearly seventy per cent—were already at work when they received their diplomas. Among the newspapers on which positions were obtained were the New York Times (6), the New York World (3), the New York Herald Tribune (3), the New York Evening Journal, the Wall Street News, the

Raleigh (N. C.) Observer, the Investment News, the New Rochelle News, the Buffalo Evening News, the Washington Star, the Fort Dodge (Ia.) Messenger, the Port Washington (L. I.) News, the North American Newspaper Alliance, and the Griffin News Bureau, Washington. This is a remarkable record, and bears witness to the efficiency of the training in reporting and copyreading given by Professors Cooper and Will, with the help of Associate Ben A. Franklin, now Night City Editor of the New York World, and other alumni of the School who have gained valuable experience in newspaper city rooms since their graduation.

In almost all cases proficiency in reporting and copyreading is the gateway to the profession of journalism, but few of the men entering the gateway have any intention of staying permanently in that kind of work, or would have the opportunity of doing so if they had that intention; reporting and copyreading (if those terms are strictly interpreted) are young men's jobs, and most of those engaged in them get out into executive or editorial positions as soon as they can; very few men wish to stay as reporters or copyreaders all their lives; the strain is too great. It is important and responsible work, and the man who gets into other branches of journalism without experience of the city room is at a disadvantage; the fundamentals of newspaper work are learned there better and quicker than anywhere else. But if our students are to satisfy their legitimate ambitions in the newspaper world, they must evidently be fitted in the School for going further than the gateway to the profession. A bright young man may be quickly taught to gather news and edit copy after a fashion, and it is being done in scores of schools and colleges all over the country. What really tells in newspaper work is something more than this-natural capacity, general information and trained intelligence, mental grasp and the power of expression. Joseph Pulitzer's plans for the School of Journalism included training for these qualities, and perhaps the greatest advantage of the School's position as an integral part of the organization of Columbia University is the security that this side of our work will not be forgotten. For this reason we have from the beginning included in the school curriculum courses in literature, reviewing, dramatic criticism, feature writing, financial writing, editorial writing, international relations, business journalism, and other subjects most of which fit a man rather by indirection than directly for the work of the city room strictly considered. These courses have been extended and strengthened as the School has grown larger and profited by its own experience. We have also made a modest beginning in graduate work, in the way such beginnings are usually made, by appealing to the staff to do advanced work in the subjects in which they have special competence, in addition to the ordinary undergraduate curriculum.

It is noteworthy that both the American Association of Teachers of Journalism and the American Association of Schools and Departments of Journalism drew formal attention by resolution, at their last meetings, to the importance of journalistic research. Dean Allen reported to the latter organization (1) that research in the history of journalism was fairly satisfactory; (2) that the economic and business field was ripe for greater activity; (3) that more attention should be paid to the international field, especially to what the Germans were doing. To this might be added strictly professional investigation into such matters as conditions of professional employment, ethical codes and practices; analysis of the kinds of news published in certain newspapers in the present as well as in the past, and the attempt to establish their effect upon public opinion and general morals. fields for investigation are obviously varied, ample and promising; the difficulty is to get the necessary funds and the necessary people.

The Association of Schools and Departments of Journalism proposes to overcome the difficulty by "evolving a plan whereby a coöperative effort in research among the various universities and colleges may be substituted for the present individual practice," and this project is entrusted to a Committee on Research, of which the Director of the Columbia School of Journalism is a member. But it is obvious that before a successful appeal can be made to any of the founda-

tions for funds to promote coöperative research in journalism, the schools in the various universities will have to show that they are in earnest by making a beginning with such resources as are at their disposal. It is gratifying to report that such a beginning has already been made at this School of Journalism. The Trustees of Columbia University and the Advisory Board of the School have assigned sums not to exceed \$5000 for the continuation of an investigation on which Professor W. B. Pitkin has been engaged for some years past. I have pleasure in including here a report of progress submitted by Professor Pitkin at the end of the University year 1928–1929:

This study of opportunities and work standards in journalism falls into three parts:

- I. An analysis of the newspaper field, to discover the types of opportunities and the quality and quantity of work required.
 - II. A record of the careers of successful journalists.
- III. A survey of students in schools of journalism throughout the country.

Eventually we hope to be able to report the work standards required for all of the more important types of newspaper work. Thus far we have spent most of our time in collecting facts. The labor of analyzing and interpreting them will continue during the next six months.

- I. Analysis of Newspaper Field:—The following questions were submitted to 100 leading newspapers throughout the country, over 75 of which have responded to date:
 - 1. How much copy does a reporter have to turn in daily, on the average?
 - 2. Of this amount, about how much is printed?
 - 3. How many people in the office edit his copy?
 - 4. What system, if any, does your paper use to protect itself against serious errors in reporters' copy?
 - 5. What is the average number of daily assignments to one reporter?
 - 6. How much of his working day is spent in (a) travel, and (b) waiting to see people?
- II. Study of the Careers of Successful Journalists:—As indicated on the attached form, this study aims to discover both the social classes from which successful journalists have come and the successive positions they have held. Over 1,000 questionnaires were sent to eminent newspapermen throughout the country, and over 600 have been returned to date. Many of the results of this comprehensive survey are included in the essay

submitted by Mr. R. Frank Harrel, who has collaborated in this particular phase of the investigation, with the aid of the Harmon Foundation.

Three types of tests have been sent to 200 newspapermen who have already submitted complete data in regard to their careers in journalism. We have thus far received fully completed answers from over 100. The three tests include:

- A. A Study in Probabilities. The aim of this test is to estimate roughly the skill of newspapermen in gauging the probability of a rumor being well founded.
- B. A Study in News Values. The aim of this study is to ascertain the judgment of newspapermen in the relation between the importance of events and their news value, and to discover how these editors differ, if at all, from various types of newspaper readers in their judgments.
- C. A Study in First Page Make-up, whose purpose is to discover the values which newspapermen set upon stories.

From the results of these tests, the study will attempt to reveal the following information in regard to professional journalists:

- A. The relationship between age and probability ratings, first page make-up, and news-value judgments.
- B. The relationship between highest position held by newspapermen and probability ratings, first page make-up, and news-value judgments.
- C. The relationship between training and probability ratings, first page make-up, and news-value judgments.
- III. Study of Students of Journalism:—The following schools of journalism have coöperated in this study: The Medill School of Journalism, Northwestern University; University of Montana; University of Oklahoma; University of North Dakota; University of Iowa; Leland Stanford University; University of Oregon; University of Wisconsin; School of Journalism of Columbia University.

Journalism students have taken the following tests: A test in proof reading; Thorndike Word Knowledge test; Kennon Literary Vocabulary test; Vocational Interest study; News-Value study; Study in Probabilities; Study in First Page Make-up; spelling tests, word definition tests.

Returns from these tests are as yet incomplete. The final correlations and intercorrelations will attempt to show:

- Relationship between Thorndike Word Knowledge test and proof reading score.
- 2. Probability ratings and first page make-up.
- 3. Age and probability ratings.
- 4. Training and probability ratings.
- 5. Age and first page make-up.
- 6. Training and first page make-up.
- 7. Vocational interest and first page make-up.
- 8. Vocational interest and study in probabilities.
- 9. Vocational interest and proof reading score.

- 10. News-value ratings and vocational interest.
- 11. News-value ratings and probability study.
- 12. News-value ratings and first page make-up.
- 13. News-value ratings and age.
- 14. News-value ratings and training.

Material is now in the hands of the University Statistical Bureau for final correlating. It will be finished early this summer, so that the final report can be prepared for some publication date next autumn. Needless to say, many of the tests will have to be altered in the light of the statistical analysis. This always happens to new tests in wholly new fields. We shall welcome any suggestions from newspaper men and teachers in journalism as to features of job analysis which we have overlooked or have handled inadequately.

Arrangements are under way to publish the results of Professor Pitkin's investigation as soon as it is completed, as well as that of Mr. R. Frank Harrel, a graduate student in the School, to which Professor Pitkin refers above, and for which a grant was made by the Harmon Foundation. But it should be noted that if the word "research" is to be interpreted in any liberal sense, the staff of the School have been engaged in it ever since the School was founded. Within that period Professor Pitkin himself has published a long list of books on literature, journalism, psychology and international relations, including such titles (to quote only the most recent) as The New Realism, Must We Fight Japan?, The Psychology of Happiness, The Twilight of the American Mind, and The Art of Rapid Reading. The Director's own list is nearly as long, though nothing like so varied, dealing mainly with modern European literature; the Columbia University Course in Literature, of which he was editor in chief, is just publishing the last of its eighteen volumes. Professor Roscoe C. E. Brown's Political and Governmental History of the State of New York is a work of real erudition and the standard authority on the subject. Professor Allen Sinclair Will's Life of Cardinal Gibbons merits the same description. Professor F. Fraser Bond has in the press a life of C. R. Miller, of the New York Times, which is awaited with interest. Mr. Merryle Rukeyser, our financial expert, has published volumes of advice to the investor which have been found exceedingly useful; and it is to be noted about the last two members of the staff that they were trained in the School before they went out to make their reputations in the newspaper world.

It is evident that we have already on the staff a very competent body of instructors in graduate work, if they were not fully occupied with undergraduate classes; there is no question that the undergraduate work must be maintained at its present high level. Graduate work in journalism is still in its infancy. A table of statistics published in The Journalism Quarterly for June, 1929, shows that in the 21 universities and colleges which make up the American Association of Schools and Departments of Journalism there were during the academic year just closed exactly 100 graduate students in journalism; and of these, 18 were in the School of Journalism of Columbia University. No other school or department reported so many, and no other university is in so favorable a position as Columbia University for doing the work expected of a graduate school, both in investigation and in advanced instruction in journalism and its allied subjects. We are doing all we can with the present staff, and the conditions necessitate gradual progress. When the time comes—and the opportunity—for a definite step forward, we are all ready to make it.

Respectfully submitted,

J. W. Cunliffe,

Director

June 30, 1929

BARNARD COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report on the condition and progress of Barnard College during the academic year 1928–1929.

The enrollment in our four regular classes has been as follows:

					1927–1 9 28	1928–1 9 29	
Seniors					1431	1922	
Juniors					304	318	
Sophomores						244	
Freshmen					304	314	
					1,004	1,068	

In addition to these regular students we have had 48 unclassified students and 30 special students, making a total of 1146 primarily registered in Barnard College, an increase of 73 as compared with last year. We are trying to keep the group of regular students about 1000 in number, but it varies somewhat.

Besides the students primarily registered in Barnard we have had 30 students from Teachers College and 116 from other parts of the University taking some courses with us. There were fewer of these than usual, so that the total registration of the college, 1292, was only 25 larger than a year ago.

On Commencement Day 254 candidates were recommended by Barnard College for the degree of Bachelor of Arts.

On the whole, the applicants for admission were unusually

¹ Includes 4 Barnard seniors registered in the first year of professional schools.

² Includes 2 Barnard seniors registered in the first year of professional schools.

good this year, and we were able to select a competent and interesting freshman class, as well as over one hundred "transfers" for the upper classes. We are eager, however, to get in touch with additional numbers of promising students throughout the country, so that we shall have an even larger list from which to select. To this end we are beginning to develop publicity work through our alumnae groups in various centers and through other methods.

There has been one change in the Board of Trustees, Mrs. Earl J. Hadley having been elected Alumnae Trustee to succeed Mrs. George V. Mullan, whose term is expiring.

The death of Mrs. Seth Low was noted with sorrow by the Board and brought back many memories of the early days of the College. The following minute was adopted:

The Trustees of Barnard College here record with sorrow the death on April 2nd of Mrs. Seth Low. During the early years of the College, she was one of its best friends, supplementing with her constant personal interest and aid the immense service which her distinguished husband, the first President of Barnard, rendered in the creation of the institution. From May 8, 1891, to March 16, 1900, she was a valued member of the Board of Trustees.

There have been several new members of the Faculty during the past year. Professor Edmund W. Sinnott has succeeded the late Professor Richards as head of our Department of Botany and has already made for himself a prominent place in our community. Professor Douglas Moore, as Associate Professor of Music on the Joline Foundation, has begun most successfully the organization of work in music for Barnard, in close collaboration with the other professors of that department in the University. He has a great gift for interesting young people in enjoying and producing good music. Next year, on his recommendation, the Faculty will allow a small amount of academic credit for ensemble instrumental playing and choral singing, when done under supervision in connection with courses in the history or theory of music.

Dr. Hoxie N. Fairchild, Assistant Professor of English, transferred to us from Columbia, has proved to be an unusually

successful teacher. The other new members of the Faculty have been Professor Georgina S. Gates in Psychology, Professor Gladys A. Reichard in Anthropology, and Professor Peter M. Riccio in Italian, all promoted to the rank of Assistant Professor from other grades.

For next year we are looking forward with great pleasure to the presence of two interesting visitors from abroad. During the first semester Dr. Charlotte Bühler from the University of Vienna, as Visiting Lecturer in Psychology, will give a course on "The Psychology of Childhood," and another, for more advanced students, on "Twentieth-Century Psychology in Europe." She will live in our guest suite in Hewitt Hall.

In the Spring Session Dr. Eileen Power, of the London School of Economics, a brilliant and distinguished scholar in the field of medieval economic history, will live in Hewitt Hall and will conduct two courses, a general one on "Studies in Medieval History" and another, for more advanced students, on "Life in the Middle Ages."

Several promotions to the rank of Assistant Professor have been made for next year:—Dr. Cornelia Carey in Botany, Miss Minor W. Latham, Dr. William Cabell Greet and Miss Ethel G. Sturtevant in English, Miss Grace Goodale in Greek and Latin, Dr. Paul A. Smith in Mathematics, and Miss Blanche Prenez in French.

Under our new curriculum, the progress of which we watch with such deep interest, the first class has now completed its junior year. We have been particularly concerned in seeing that the various departments gave proper supervision to their groups of major students and insured their having a unified and effective course. The problem has been a particularly difficult one in the Department of English, which has by far the largest group of majors. Students without any special ability or any special interest have been very likely to drift to English as a major as the line of least resistance, and it has been possible for them, by taking points here and there, to arrive at the total of 28 required for a major without any really sound and unified knowledge of English literature. The De-

partment of English has been considering this problem carefully and on its recommendation the Faculty has now adopted a new regulation concerning majors in English. Henceforth, beginning with the Class of 1931, in order to achieve a major students will have to pass at the end of their course a comprehensive examination. Except for those with a special gift for English composition, all the majors will have to pass the three parts of the comprehensive examination, the first, dealing with the history of the English language, including a knowledge of either Middle English or Anglo-Saxon, the second, covering English literature before 1700, and the third, English and American literature since 1700. A student gifted in composition may omit the language section of the examination, choose either the second or the third literature section, and take 18 points of work in English composition, in which she must receive a grade of at least B in order to satisfy the requirement.

To help students prepare for the comprehensive examination, a new course has been organized called "Reading for Majors." Several sections of this will provide for the English majors conferences and advice on special reading, planned in each case to supplement and coördinate the other courses in English which the student is pursuing.

These arrangements ought to improve greatly the work of our majors in English. The announcement of the new requirement has cut down considerably the number of students electing this subject as a major. Many of the weaker ones may now drift elsewhere, or out of college altogether. A few of the other departments may need to develop a similar plan for unifying and stiffening the work of their majors; but most subjects, especially mathematics and the natural sciences, automatically protect themselves.

The plan of holding meetings of the major students three or four times each term has worked very well in some departments. Such gatherings give a sense of unity to the group. They provide opportunities for personal contacts with the instructors, for conference and discussion, and for hearing talks by distinguished specialists in the field. Thus the students are helped to appreciate the general significance, interest and beauty of their major subject, instead of regarding it merely as a bookkeeping matter of acquiring twenty-eight points.

The College has received during the year in gifts \$103,838. The largest single item is \$52,000 from the estate of the late Delphine Brown. Many of us will always think of her as the charming little girl with curls who stands with her brother and her elder sister in the attractive picture hanging over the fireplace in the College Parlor. She died some years ago as an elderly lady, leaving her money temporarily in trust for relatives, with the proviso that it should be turned over to Barnard when they died.

The alumnae have been very zealous in helping the College during the past year. The Barnard Shopping Week organized by them at Lord and Taylor's last autumn netted \$6,279 for our General Endowment Fund. The loyal Class of 1904 on Commencement Day presented as its twenty-fifth anniversary gift \$4,500, also for General Endowment, and the Class of 1919 as its decennial gift gave \$5,000 for the endowment of a room in Hewitt Hall. We have also received an individual gift of \$1,000 for endowment from Miss Renée Baruch of the Class of 1926.

We were grieved by the death of one of our sophomores, Geraldine Voit Zieser, and are glad to have a memorial of her, a fund of \$1,000 given by her parents, the income of which is to be used for the purchase of books for Italian courses.

For our Summer School for Women Workers in Industry, an enterprise which has attracted considerable interest and support, we received gifts of \$10,534.

International relations have continued to interest the College. Our undergraduates have again raised money for two international fellowships, one to send a Barnard graduate abroad, and the other to bring a foreign student to Barnard. We have received from interested friends gifts for two scholarships to send students to Geneva this summer to attend the School of International Studies there. Miss Elizabeth Linn, President-elect of the senior class, and Miss Mary Dublin, Editor of the Bulletin, have been chosen to hold these scholarships.

To help us with this international work we welcome particularly the generous gift of Mr. and Mrs. James Lees Laidlaw of \$10,000, for the James Lees Laidlaw Fund, the income of which is to be used towards bringing to Barnard professors and lecturers from abroad.

A beautiful seventeenth-century French tapestry, loaned by Mrs. Helen Hartley Jenkins, in the name of her daughter, Helen Hartley Jenkins Geer, of the Class of 1915, greatly adorns the third-floor corridor of Barnard Hall.

No payments have yet been made to the College under the bequests of the late Olivia E. P. Stokes and the late Harriet E. Phillips, but we hope ultimately to receive about \$400,000 from the former estate and at least \$100,000 from the latter.

A plan for a Spanish residence has been begun under very favorable auspices. For several years, stimulated by the imagination and enthusiasm of Professor Marcial-Dorado, we have been eager to establish a residence where a group of our students interested in Spanish might live in a Spanish atmosphere, hear and speak the Spanish language, and be closely associated with the Spanish colony in New York City and with visitors from Spain and the Spanish-American countries. A committee has now been organized with a distinguished membership to carry out this plan. The Chairman is Mr. Hernand Behn, the Treasurer, Mr. Clarence H. Mackay, the Secretary, Miss Elizabeth Evans Hughes, and there are many illustrious names upon the Advisory Committee. We hope that in the near future sufficient money will be secured to enable us to start the residence. It will at first occupy either a group of apartments or a rented house in the neighborhood, but later on, if all goes well, we hope that we may have an appropriate building of our own.

Opportunities to live in this sort of atmosphere and to hear and speak a foreign language are very valuable and greatly needed by our students, who, like most Americans, are weak on the language side. Should the Spanish enterprise be successfully started, we ought then to turn to the problem of organizing a similar opportunity for students of French.

The most serious problem of the year has been a financial

one. In order to put our new salary scale more fully into effect we needed additional income and to secure this it became necessary to increase our tuition fee. For some years we have charged \$10 per point of instruction, making a total of about \$320 for each student, and in addition to this have required a registration fee of \$10 each semester. After long and careful discussion the Trustees decided in February to adopt for the future a "flat" or "blanket" fee of \$380 for all regular students. This plan of a flat fee is, we all feel, more advantageous educationally than the payment per point. We shall continue, however, to exchange fees on the old point basis with the other corporations of the university, for students who go to and fro for part of their work.

With the registration fees, the total tuition charge for the year will now be \$400, which is the amount charged by Bryn Mawr, Radcliffe, Smith, Vassar, and Wellesley. The additional \$60 will apparently be no burden to at least three-quarters of our student body. To the needs of the other quarter and to the problem of all good students without means who desire a college education, we have been giving a great deal of thought. The Trustees have appropriated \$14,000 from the general income of the College for use as special scholarships. Out of this fund we are giving to any student already in college who feels that she suffers hardship through the increase, a grant of \$60 to meet the difference. We are also increasing most of the usual scholarships by this same amount. Moreover, in special cases we are permitting students to pay the fee for a term in two installments, instead of requiring the whole sum at the opening of the session.

For new students desiring to enter we are establishing from the general income of the College a set of "open scholarships." These will be awarded on any method of admission, on very elastic conditions, and will vary in value according to the special need of each student. Normally they will be worth \$500 for a resident student and \$300 for a non-resident.

Raising the tuition fee always involves, in spite of all precautions, some danger of keeping out good students. The group about which we are most concerned is the daughters

of professional men and women with modest incomes—teachers, professors, clergymen, country doctors and similar professional workers. The women's colleges have found that in the long run their best students come from this class. In such families there are likely to be brains, some tradition and background of culture and intellectual interests, and not enough money to make life too easy for the children. Raising our fee may keep some of the best of these girls away from Barnard, but we are trying hard to prevent that. The new "open scholarships" we are announcing as especially intended for the daughters of professional families.

But there are many difficulties involved in all this, often ignored by persons who say lightly that all college fees should be raised to the cost of instruction and the impecunious students cared for with scholarships and loans. Many parents, self-respecting, proud of their independence and of always having paid their way, will not consider having their daughter apply for a scholarship. On looking at a college catalogue and finding that the total cost for a student's tuition and residence is a thousand dollars a year they simply throw the pamphlet away and say that it is absolutely impossible for their daughter to go to that institution. Scholarships they regard as a sort of charity, to accept which is beneath their dignity.

We have been trying to reach such families, through the right sort of publicity, and to convince them that winning a scholarship is not beneath the dignity of any one; that it brings credit, not discredit, to any family; that it is not a charity, but an academic honor which the college is glad to bestow and the student should be proud to receive. We have zealously tried to get this message across by newspaper articles and by radio talks, but we feel doubtful as to whether we have made any considerable impression on the minds of the families we most wish to reach.

Another difficulty we face is the arrival every autumn of some students who are entirely or almost entirely penniless, and who have been led by romantic articles in newspapers and magazines to believe that "working your way through college"

is a perfectly simple, easy, noble and democratic process. Sometimes they have been so convinced that this is a good thing to do that they have refused financial help from relatives. Now "working your way through college"—that is, earning, while you study, all your living and college expenses—is not a good thing in itself but a bad thing, for girls, at all events. It is practically impossible for all except a very few unusual young women to attempt it without serious injury to their health or their academic standing or both.

I have in mind an able and interesting girl who "hitch hiked" across the country from the Pacific coast a few years ago and started to work her way through Barnard. In spite of our efforts to aid her the strain had produced, by the time she graduated, permanent injury to her heart.

Of course a great many of our students easily earn a part of their expenses, and this without serious injury to their class standing or their health. Summer positions are especially helpful for these. Our Occupation Bureau provides a considerable variety of work, for summer and winter, to help such cases. But we are very anxious to prevent girls from coming unless they have already been given or earned or borrowed enough money to see them through their first year.

Borrowing some money is much better than trying to "work your way" completely. But this method also presents difficulties. Many students have a superstitious fear of getting into debt. They will often prefer to risk their health through frightful overwork and strain, rather than borrow. We try to make them look at loans in a practical, business way, but it is often hard. The Student Loan Committee, conducted for many years by our alumnae with great wisdom and success, has been of immense help to us in handling many of these cases.

There are many students who ought to borrow, but it is natural and right that women should hesitate to borrow as much as men. It will probably be harder for them to pay it back, because as a general rule women do not earn as high salaries as men. Moreover, they look forward to marrying, and are reluctant to load a debt on a young husband. A debt

makes an unattractive sort of dowry, and we do not want to diminish the marriage rate or postpone the age of marriage among this group of educated women. There ought, therefore, to be more scholarships provided in women's colleges than in men's.

A debt of nine hundred or a thousand dollars is not, however, too much for a girl to assume. If the total cost of college is a thousand dollars a year, and she comes with that much, she may, after the first year, win each year a scholarship worth four hundred dollars, earn three hundred and borrow three hundred. That is not an impossible budget, and it is some such combination that we urge as the best plan for good students with little or no money.

To carry out such a scheme properly, however, we need about \$300,000 additional endowment for scholarships and about \$10,000 more for the Students Loan Fund of the Associate Alumnae.

After deducting the expense of our new scholarships chargeable to general income, we estimate that the net increase produced by the change in the tuition fee will be about \$40,000. This will care for a large part of the cost of putting into effect the new salary schedule. Next year every officer of the College will receive at least the minimum salary for his grade provided in this new scale. A number of officers, however, will not occupy the same relative position they held under the old scale, and there are also others who very decidedly deserve and need further increases. The College must, therefore, continue to seek additional endowment.

Another heavy burden of expense has recently been imposed on us. The unavoidable reductions in retiring allowances recently made by the Carnegie Foundation reduced the pension expectations of an important group of our officers to the impossible figure of \$1500 a year. It became absolutely necessary for the College to make some fairly decent provision for these individuals who had been suddenly deprived of the greater part of pensions which they had been promised. Following the example of the Columbia University Trustees, the Finance Committee of the Barnard Board has determined to recom-

mend to our Trustees the adoption of the plan devised by Columbia, providing a contributory system of retiring allowances for this group. Each officer who accepts this plan will contribute five per cent of his salary annually, and the College will add enough to assure him of the amount he would have received under the first Carnegie guarantee, with a maximum pension of \$4,000, and the retiring age set at seventy.

This will impose an annual charge on our budget of about \$12,000 for the next few years, diminishing later, but with very considerable lump-sum payments at irregular intervals, to purchase supplementary annuities. Our new bequests, not yet paid over, will help towards meeting this heavy burden.

Very serious crowding in our library has led us to study carefully the whole library situation. Though Barnard should always depend, of course, upon the University Library for books and periodicals necessary for advanced research work, we urgently need a thoroughly sound reference library with adequate space for books and for reading and studying. This space we no longer have. Our Committee on Buildings and Grounds accordingly now believes that the next building to be erected by the College should contain, besides additional class rooms, a thoroughly well-planned library, with plenty of shelf space for books, and comfortable and attractive surroundings in which our students may carry on this vitally important part of their work. Such a building would be a most welcome and helpful gift.

Realizing that we cannot expect financial support unless possible donors know about our usefulness and our needs, we have, during the past year, given a great deal of thought to securing the right sort of publicity. In this we have been much helped by the alliance of seven women's colleges described in the Dean's report of last year. Under the stimulus and guidance of our zealous joint committee of alumnae much excellent publicity has been achieved in the form of newspaper and magazine articles and two great dinners, one organized by a joint alumnae committee in Philadelphia last autumn, the other by a similar group in Chicago in May. The executive heads of the seven colleges attend and speak

at these gatherings and have proved quite successful in attracting public attention, for though one college president alone is not especially thrilling, seven together are apparently a distinctly entertaining and attractive feature.

Through the work of this joint committee several thousand people in the country must already have been induced to contemplate seriously women's colleges and the value and needs of higher education for women. Surely some of these will be moved to help us with our work. Bequests, large and small, will, we feel certain, gradually flow in, and these are in the long run one of the best possible means of support.

Working in close touch with the Seven Colleges Alumnae Committee, on which she is our representative, Mrs. George Endicott is organizing an efficient publicity committee of our own Associate Alumnae to help care for Barnard's special needs.

Thus, we hope, the country at large and its women in particular will become more aware of the very essential service being rendered by the women's colleges and of their great need of more adequate support.

Respectfully submitted,

VIRGINIA C. GILDERSLEEVE,

Dean

June 30, 1929

TEACHERS COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

The progress of the year in the Schools of Education and Practical Arts is detailed in the reports of the Directors which are transmitted herewith. There only remains to be discussed that which pertains rather to the institution as a whole.

There has been an unusual number of changes within the Board of Trustees. Miss Mercy J. Hayes and Mr. Owen D. Young have been elected to membership; Dean M. Gordon Neale and Miss Anna E. Richardson have become Alumni Trustees; and Mr. B. T. Babbitt Hyde, by reason of a change of residence, has resigned the place which he has occupied for more than thirty years. Mr. Clark Williams has resigned as Treasurer. Mr. Arthur Turnbull and Mr. Valentine E. Macy, Jr., have been elected as Treasurer and Assistant Treasurer, respectively. We are grateful to Mr. Williams for his eighteen years of exacting and tedious service as Treasurer, and we appreciate his continuance as a Trustee. It is with sorrow that we record the death on December 20, 1928 of Colonel Newbold Morris, since 1894 a Trustee of Teachers College and from 1897 to 1916 Secretary of the Board.

It is also a bitter task to record the death of Robert Josselyn Leonard, Director of the School of Education. For six years he had been growing in power and responsibility; he had prepared himself for his work, and his untimely death took from the College an able executive; from the students, an inspiring teacher; and from the educational world, a leader in the scientific study of professional education.

To the vacant post has been appointed Dr. Paul R. Mort, a member of the staff since 1922. The contributions of his

research have been important, not only because there has resulted a new understanding of the proper relation of large and small governmental units in the financing of education, but also for the fact that these theories are finding their way into practice in many of the states. To the post of Provost has been appointed Dr. Milton C. Del Manzo, Professor of Education and Associate of the International Institute.

The College gratefully acknowledges the receipt of gifts and bequests totaling \$534,047; among them \$100,000 from the General Education Board for the Lincoln School; \$90,000 from the Laura Spelman Rockefeller Memorial for the Child Development Institute: \$85,000 from the International Education Board for the International Institute; \$27,500 from the Institute of Social and Religious Research for the Character Education Inquiry; \$24,222 from patrons for the use of the Horace Mann School for Boys; \$22,000 from the Carnegie Corporation for research; \$20,000 from Mr. V. Everit Macy and the estate of Mrs. Macy for grants to foreign students; \$12,500 from patrons for the use of the Horace Mann School; \$10,000 from the Carnegie Corporation for Normal School Education; \$9.787 from the Commonwealth Fund for research; \$9.280 from patrons for the Lincoln School Building Fund; \$8,000 from Mr. V. Everit Macy for the Ruth Loan Fund; \$7,500 from the Keith Fund for school experimentation; \$6,000 from Mr. V. Everit Macy for the Geneva Conference of the International Institute: \$4,000 from the American Classical League for the Service Bureau for Classical Teachers; \$2,000 from Miss Mercy I. Haves for student welfare: \$2,000 from Mr. Mortimer L. Schiff for Scouting Education; \$1,000 from Colonel Newbold Morris for general endowment; \$1,000 from Mr. James Speyer and \$500 from Mr. Dunlevy Milbank for the Emergency Fund. In addition the General Education Board has voted to complete the endowment of \$3,000,000 for the perpetuation of educational research through the Lincoln School.

The greatest concern of the educational executive is the progress of his institution. He knows that no school or college can remain static. Day by day it grows better or worse. History furnishes him examples of the decline and fall of uni-

versities that once were important, and he realizes that their life history seems to comprise a youth of ambition and growth, and a middle age of power and service, all too often to be followed by a period of decline as ideals fade and practices become traditionalized until unbeknown to faculty or administrative offices, senescence has set in and a renaissance is needed.

It is the uncertainty of being able to perceive this decline, if it occurs, that is the cause of worry. The head of a business enterprise can judge by the volume of sales and the balance sheet, but no such simple standards are available for the college. For many years Teachers College has set itself the task of discovering and providing for others measures of progress and decline. So successful has been this enterprise that at the present time a principal wishing to determine the present status of his school in comparison with others, or with his own institution at some previous date, has available for his use tests and scales in most of the school subjects, score cards by which to rate buildings, equipment, janitors, and teachers, and partial measures of such elusive traits as school citizenship or character. The president of a liberal arts college has at hand the results of recent researches in developing standards for higher education, but there is little indeed that we at Teachers College can apply to ourselves. Is Teachers College better than it was a decade ago, or worse? Are we still on the upgrade or are we settling into a gradual decline that will become more pronounced as the years go by? Do our students receive the training that they should? Do we do all that we can? It is true that the number of our students grows, that our income increases, that foundations continue their grants and benefactors make gifts. These are encouraging, but not unfailing, signs of progress. Unfortunately there is no commonly accepted and certain standard by which to judge, and not until some future day, from the experience of our graduates, shall we be able to say "We continued to forge ahead from 1925 to 1935," or "We fell behind in those years." Then it will be too late to do anything about it.

In order to guard against the possible danger of unnoticed

decline we must keep constantly before us the problem of self-improvement, preserve an objective attitude toward our work, be open-minded to our critics and as receptive as possible to new ideas.

To this end, the College during the past year has been attacking the problem discussed in my last report. We still have the difficulty of trying to give quality education in quantity at relatively low cost. Last year there were nearly 20,000 different students. During the winter there were nearly 6,000 regular students in Teachers College together with some 750 from other parts of the University. From endowment we received an income of less than \$200,000. or little more than \$30 per student. When one considers the joint plea made by the women's colleges in the Atlantic Monthly, wherein they complained that they received from endowment only \$120 per student and hence were handicapped. one can clearly see the situation at Teachers College. students pay from \$300 to \$360 for a year's tuition. together with \$20 as the University Fee, a graduation fee, and \$30 from endowment, forms the total which we can expend and remain solvent. The problem is how to provide the best quality of training at this figure. It was suggested a year ago that this difficulty is not peculiar to Teachers College, but that sooner or later it will force itself upon most of our educational institutions if America continues to desire more and better education for all.

Professor Charles E. Rush, the new librarian, has been hard at work during the year, and, assisted by a grant of \$50,000 to be paid by the Carnegie Corporation in five annual installments, is making a start in developing the library as we planned a year ago. As in most matters affecting schools or colleges, progress comes slowly. A multitude of factors are involved. Inspection of the report of our librarian reveals the progress that has been made in putting the library into shape, making it more accessible to students, improving the collections, and uniting the whole to class work. We are now preparing to put into operation the plans for bibliographical service.

The first step toward the improvement of instruction was made during seven evening conferences of the entire professorial staff, together with the administrative officers and associates. The purpose was to develop the problem of selfimprovement of the College, to discover our shortcomings, and to agree, if possible, upon means for the eradication of our faults and the betterment of our practices. As a stimulus to thought there were sent to each attending member mimeographed copies of recent indictments of the work done in our schools of education; but this was unnecessary, for from within our own ranks came a mass of criticism and suggestion. Not one phase of our work was omitted. Apparently there is nothing that all will agree is done as well as it might be. The long list of criticisms as they were made reveals a tangled mass of conflicting suggestions based upon the differing interests, training, background, philosophy and ideals of one hundred and twenty men and women. Some of the suggestions are sweeping, some minute; some apply to all our work, some to that of one professor or one field; some are extravagant and exaggerated, some are penetrating and precise; but the total forms a clue to the ambitions of our staff and friends elsewhere as to the kind of institution Teachers College should become. Out of these criticisms we hope to develop the standards that we lack, so that in the future we may be able to recognize step by step our progress or decline while it is in process. If there were general agreement, the task would be simple; but we have many educational traditions, we hold conflicting ideals. The future pattern of work in Teachers College will depend upon the relative merit of at least four educational ideals that lie behind and are the explanation of the conflicting judgments that we make. From among these we must either select or effect some sort of compromise.

The first ideal, based upon the continental university, is that a professional school like Teachers College should become an advanced research institution with a relatively small number of professors, each selected for his proficiency in investigation and for his encyclopedic command of a field of human knowledge. Assisting him should be a number of

junior associates, but the professor alone should determine the quality of research and scholarship required of candidates for the degrees. Only the superior student should receive attention. Instruction should be carried on by carefully prepared lectures, seminars and individual conferences. Examination at the close of the student career should be the sole test of success. There should be required no attendance at class, no "grades," no term examinations, no student discipline. To the holder of this ideal many practices of the usual college of education seem to lack merit. He looks down upon certain professors; he deplores the absence of what he considers scholarship; he criticizes the standard set for doctor's dissertations; he would restrict the right to direct research; he is concerned whether a course is "graduate" or not; he feels that students receive too much assistance; and he regrets spending time upon the inferior and unfit.

The second ideal, coming from the English university, is that Teachers College should become somewhat like Oxford or Cambridge. At entrance the student would say to himself, "I am about to follow upward along the educational path. I shall read in the library. I may listen to lectures. I must find a tutor who will guide me; and in the company of my friends, I shall have an opportunity to study, listen, discuss, and grow. I shall broaden my horizon. I shall travel. Later on, if I prove competent, I shall take the examinations for a degree." The holder of this ideal is concerned with the lack of adjustment of an institution like Teachers College to the widely varying abilities and backgrounds of the students. He desires to emphasize larger and broader problems, rather than to center upon techniques. Courses and requirements he considers Procrustean. lecture and course system he judges to be inefficient, because of the inevitable repetition, in part, of that which the student either already knows or could read elsewhere. He feels that the student tends to become pedantic and that education is incomplete if it fails to include artistic creation, shared appreciations in music, art and literature, and fellowship with students and professors. He also objects to marks, periodic examinations, and attention to the poorer student.

The third ideal is the American college, neither the college of a half-century ago with its fixed requirements and personal attention of a select staff to a small student body, nor that of the last few years with the great improvements that have been made, but the college of the beginning of the twentieth century, after the accrediting agencies had fixed the standards. The holder of this ideal believes that higher education is not the achievement of a standard of proficiency, but the collection of a certain number of hours, units, credits and points. Education is something that one may add up. He is concerned with such problems as entrance standards, hours for graduation, credit for part-time work, Saturday classes, and correspondence courses. To him there is something sacred about A, B, C, D, and F. He worries about required attendance, "cuts," excuses for absence, duplication of courses, prerequisites, and whether a student should take two-point, three-point, four-point or five-point courses for a degree, and in what proportion. He thinks that he understands the difference between credit and "residence" credit and he has fathomed the distinction between graduate and undergraduate work. He is concerned whether courses are difficult or easy and he wants to stiffen them up. It is his joy to standardize, to systematize, to inspect and to accredit. influence on American higher education is profound; the Philippine Islands and Porto Rico he has infected, and even the colleges supported by American mission boards in China and the Near East have not been spared.

The fourth ideal is that of the professional school. The follower of this tradition has a definite method which he follows until habit interferes or conflicting educational practices force a change. He first looks into the world to discover the various qualifications necessary to success in a given occupation or profession. He then studies this list of abilities and traits, dividing them into two parts, those which are either inborn or so elusive as to resist training, and those which are teachable. The former are the foundation of his plan of student selection. The latter are divided into those for which preliminary education can best be responsible, those which can

be gained individually and incidentally, and those which can only be gained in connection with a professional school. The last form the basis for university work on which within the limits of the time that the student can afford to spend in preparation, the professionally minded professor arranges the program of studies. It matters little to him whether the work be easy or hard, graduate or undergraduate, twopoint or five-point, resident or extramural. His test is whether or not the work given prepares the student to practice his profession. The professor seeks no admiration for his scholarship nor does he desire academic respectability. If taxidermy or blacksmithing be necessary, it is just as good as anthropology or Sanskrit to him. He cannot divide his work into neat multiples of thirty hours. One ability or trait may demand fifteen minutes to develop; another, five hundred hours. His teaching depends upon research, he respects it, and he may even be a skilled investigator himself; but he has no faith in an academic tradition that forces his students to spend a major portion of their time painfully acquiring techniques that they will never use. He judges a dissertation by its success in developing in the student a useful ability. He is charitable to the so-called poor student, because he knows that the judgment as to "poor" or "good" is usually based upon the ability to acquire knowledge or conduct research, rather than upon the ability to do the work in the world. In rapidly developing fields like education or practical arts he dislikes to see training discontinued with the granting of a degree and he considers it his responsibility to provide journals, conferences, extension work, institutes, and postgraduate courses to assist the practitioner after he has entered upon his profession. He is always an advocate of practical contact with the field.

The person who believes in the professional ideal disagrees heartily with the previous three. The American college, in his opinion, affords a standard only for the important culminating years of secondary education, using the term in its European sense. He has seen the wave of German influence break with its seminars, lectures, and examinations,

and he is watching the English tide bear to our shores colleges within a college, readings for honors and guidance plans. He knows that in Germany and England these concepts do not apply to professional education, save for the training of professors and research workers. He nevertheless admits the justice of many of the criticisms directed against professional education.

The purpose of professional education is direct and distinct, and the general attitudes are of the types depicted, but here the uniformity ends. The qualities necessary to success in various professions vary from attitudes, background, and philosophy at one extreme to the mastery of minute techniques at the other; and, in consequence, the methods used to achieve these ends in differing proportions in different schools resemble each other not at all. Thus we find the old European normal school emphasizing only the mastery of techniques and the theological seminary confining its attention to fundamentals and background. The law school includes no practice, reserving that for the apprentice years to follow; while the medical school provides for observation, diagnosis and interneship after an extended period of preparation. In law, business, and library schools there is a grouping of knowledge, ability and skill about practical situations as they are artificially introduced by the case method. Thus some believe that professional training consists in theorizing concerning practical situations already experienced; some, that it is best advanced if students practice in the light of theory and knowledge learned; some, that theory and practice should go hand and hand.

It is evident, therefore, that Teachers College has not yet decided to the satisfaction of all concerned which of the ideals it shall serve. In the reports of the Dean of Teachers College prior to 1928 the relative merits of the academic, research, and professional ideals were thoroughly discussed and the weight of evidence toward the professional was clearly shown; but the continued advocacy of the others indicates the desirability of supplementing the professional by incorporating the good features of the others if and where possible.

We cannot do less than consider their possible application to each of the many different plans for professional preparation found in Teachers College which will correspond to the wide variety of occupations for which we train.

At one point there was found an opportunity for harmony between the research and professional ideals. In the field of educational psychology, the advanced students prepare for positions as college professors, research workers and directors of laboratories. Clearly the research ideal at this point is also professional. To test this, it was agreed to institute a new plan of work for students who have passed the matriculation examination and thus have been accepted as candidates for the degree of Doctor of Philosophy. These students may register for one course which will occupy their entire time for the academic year. A certain professor will meet with the student, and by extended conference, the two will plan a year of reading, research, and occasional attendance upon courses, either full time or in part, as shall seem wise to both. There will be no fixed requirements, other than a searching examination at the close of the year. The purpose is to make available all the facilities of the College.

It was also agreed to try a second experiment, a new plan for the training of prospective critic teachers for normal schools, and thus test the worth of relatively informal work in a non-academic, professional field. In these institutions as usually found in the United States, students enter from high school with the purpose of becoming teachers in two, three, or four years' time. The faculty of the normal school gives courses in so-called academic subjects such as mathematics and history, and in so-called professional subjects such as educational psychology and methods of teaching. Uusually in another building, nearby, is the training school; and here the prospective teacher is required to observe classes in which the academic subjects which he has studied are taught to children according to the professional principles he has learned. Later on he spends a number of hours in practice teaching. This observation and practice teaching is under the direction of the critic teacher, who, to hold this key posi-

tion, must not only know the subjects and how to teach children, but be able to guide and direct young teachers as well. It is a difficult post, even for the trained teacher of experience and it can readily be seen that Teachers College has no easy task in providing the corresponding professional training. The experimental course now being introduced requires attendance for a full calendar year, with credit the same as for the student who enters in September and leaves in Iune. The student registers for one class which will occupy his entire time and, as in the plan in psychology, there are conferences with an instructor and an informal organization. This plan differs from the former in that students are admitted only by invitation, that a period of four months is spent in practice as a critic teacher in one of several affiliated normal schools and that greater attendance at lectures and class exercises is contemplated.

Five evening sessions are scheduled for January next. Reports of committees and the discussions of last year will form the basis for further steps. We shall watch the results of these experiments with great interest, especially their relative effectiveness as compared with our present work and also their cost.

There is an important phase of the development of the College that was not mentioned in the staff conferences. The success of teaching depends primarily upon the kind of men and women who teach. When Teachers College was growing, there was gathered together upon Morningside Heights the most distinguished faculty in education and practical arts to be found anywhere in the world. When appointed, most of the professors were young; today on the retired list are only seven of their names. Within the next ten years, twenty full professors will reach the age of retirement. Much of the future of the College depends upon their successors.

The older College brought together the divergent views of many different institutions. The men who built Teachers College, received their training at Jena, Dickinson, Rostock, Syracuse, Chicago, Columbia, Johns Hopkins, and Harvard. If we now consider the younger members next in line for the same posts, we find that they are nearly all graduates of Teachers College. It is thus apparent that we are in danger of becoming intellectually inbred; and no matter how much we read, study and travel, there is a possibility that we may not be in thorough sympathy with what the rest of the world is doing.

One solution to this problem is to select professors from among those who have received their training elsewhere, and this has been accomplished to some extent in the recent appointment of representatives of Chicago, Harvard, Iowa, Minnesota, and Brown. Another is to encourage foreign study during the first sabbatical leave, but for most professors this is ten years distant from the time of taking the Doctor's degree. We need to be able to send the younger members of our staff away for further study, some to institutions in our own land and some to foreign countries. It is difficult for them to leave. Their salaries are low, family responsibilities heavy, and usually they are still in debt for their professional training. It is doubtful if a decade hence Teachers College will have as distinguished a Faculty as it now has. The chances would be far more favorable if we were financially able to guarantee that at no place in the world would there be a movement in education or practical arts with which we were unfamiliar, and if we could be certain that our professors not only had received the best that we had to offer, but had tested and advanced that training among scholars elsewhere in the world.

Six and one-half years ago Mr. John D. Rockefeller, Jr. established the International Institute of Teachers College by a gift of one million dollars to be paid at the rate of one hundred thousand dollars a year through the International Education Board. This institute was to serve a triple purpose: to give special advice and instruction to the ever increasing number of students and teachers from foreign lands; to bring the schools of the United States into touch with the best of foreign theory and practice, and upon request to render direct assistance to educational authorities in foreign countries. In large measure these objectives have been attained.

The International Institute has cared for some four hundred students each year coming from almost every country in the world. It has developed specially devised plans for instruction and guidance, notably the extended trips taken by whole classes to view schools not only in New York and vicinity, but also in Massachusetts, Connecticut, New Jersey, Pennsylvania, Maryland, Virginia, and North Carolina. The Yearbooks of the International Institute, its monographs and library furnish authoritative information about recent developments abroad; and in the relationships of the Director and his staff, there have been more friendly advisory contacts established with educational authorities abroad than would have been thought possible.

From the educational experiences of the United States, the foreign student can learn much—much to imitate and much to avoid. Of especial interest are our long efforts to provide schooling for all, the tendencies toward democracy, the development of a science of education, the attempts to solve the educational problems of the Indian and the Negro, and the experiences in Porto Rico and the Philippines. But to many of our foreign students the most illuminating and the most informing part in all our history of education is the relatively recent development of education in the southern states. Many countries in the world today curiously resemble the South a generation ago. There is the same spiritual discouragement resulting from unsuccessful warfare, the same economic depression due to losses of men and property, the same inability to forge ahead, due to the unproductivity, the wastefulness and ill health that is consequent upon a lack of schooling; and the same pride and self-reliance that refuse to ask for aid and scorn it when offered. Our foreign students follow with keen interest the way in which Seaman A. Knapp and his associates, by means of corn, pig, and canning clubs, taught the children, and through them, the elders, how to produce and conserve, and thus developed an economic base upon which schools and other social agencies could be built. They watch the development of agricultural and home demonstration work. They see the Rockefeller Foundation stamping

out hookworm, malaria, trachoma and other diseases. their imaginations they join the parties of travelers with Robert C. Ogden and learn how men and women of the North became interested in the problem, and they come to appreciate the astuteness of Dr. Wallace Buttrick and the members of the General Education Board who selected promising and wellconnected young men, sent them away to secure training and new ideas, and gave them support and assistance after their return home. They watch the development of a system of schools and they see that this is followed by further increase of production, decrease of waste, and improved health, which in turn provided better education; so that at the present time the South affords the North and West examples of the best that is found in American education, especially in certain aspects of state school administration and rural education. Thus our foreign students learn that the educational rehabilitation of the South was a result neither of schools and colleges supported by the North, of educational missionaries, nor of acts of Congress or legislatures; but that the development came rather from the sequence of four factors: the presence of men of vision, the development of an economic base, the training of leaders and the encouragement of their work of promotion at home. This is a significant lesson, possibly the most important to be learned from the history of education in the United States.

Thirty years ago the United States faced the problem of the rehabilitation of the South. In a sense the whole world is facing this same question in relation to certain backward countries. Everywhere there are war-ridden areas populated by proud people who are dispirited and economically impoverished, whose advance is blocked because they lack men of vision, an economic base, men of training, and schools. Through the stimulation of agriculture and the advancement of science in the world today the International Education Board is duplicating the step taken by Seaman A. Knapp a generation ago. This will in time yield an improved economic base, as will also the health work of the Rockefeller Foundation. The need for a Robert C. Ogden is not so acute, although much could

be done to enlist the interest of men of means in England, Holland, France, and Japan as well as in the United States. The International Institute of Teachers College has been giving training to students who come to the United States granting them scholarships and expenses of travel. International Education Board has been giving fellowships for study to scientists and agriculturists. But there has been a missing link. To complete the chain, the Chairman of the Board of Trustees of Teachers College, Mr. V. Everit Macy, and Mrs. Macy gave one hundred thousand dollars to be expended in five years. The plan was for the Director of the International Institute and his associates to make personal contacts with educational authorities in other lands, and in consultation with them, to select men and women young enough to profit from foreign study and training but sufficiently mature to have already demonstrated their ability at home. These persons were to be invited to spend a year at Teachers College with all expenses paid. For each of the last five years there have been from ten to twenty of these holders of the Macy Grants at Teachers College.

It was the custom of Dr. Buttrick in former days to hold periodically conferences of the men who had been trained and were at work; and, in pursuance of the same policy, Mr. Macy financed the first conference of the International Institute held at Geneva this summer.

There were in attendance at the conference the following representatives:

Poland. The Director of Vocational Education in the Ministry of Educa-

Germany. The Director of the Bureau of Elementary Education, Prussian Ministry

A professor of education, University of Hamburg

Three professors in Gymnasiums *France*. A normal school professor

Spain. A primary school inspector, Madrid

Norway. Two junior college professors, Oslo

Scotland. The Lecturer in Education, University of Glasgow

A secondary school teacher

England The Professor of Philosophy, University of Bristol

Austria. The Supervisor of Science, Vienna

Czechoslovakia. The Lecturer on Education, Masaryk University

A professor of education, Normal School at Brno

Hungary. The Director of the Bureau of Higher Education, Ministry of Education

A state supervisor of secondary schools

A teacher of child psychology in normal school

Bulgaria. A college professor

Yugoslavia. The Librarian of the Ministry of Education

Rumania. The Special Councilor of the Rumanian Legation, Paris, and the editor of an educational journal

Turkey. Two normal school teachers

Iraq. The Educational Director, Bagdad

A normal school professor, Bagdad

Egypt. A university dean

An educational editor

India. A professor in Andhra College, Madras

China. Three university presidents

A dean of women

Japan. A professor in Tokyo Higher Normal College

Philippine Islands. The Dean of the School of Education, University of the Philippines

Switzerland. Two secondary school professors

An Associate in the Jean Jacques Rousseau Institute

United States. Two members of the Board of Trustees of Teachers College

Two teachers from the Horace Mann School

Seven professors from Teachers College

We are familiar with the many successful international conclaves of scientists and physicians. One wonders if there was ever one like this in the field of the social sciences. Here were fifty men and women from twenty-two different countries. Each spoke English. Each had attended Teachers College for at least a year (with one exception), had visited the same schools, had read the same books and reports, and, in consequence, understood the technical terminology of each other, as well as any group of students in Teachers College would understand each other. It was not a conference of young students. These were mature men and women, nearly all Doctors of Philosophy or the equivalent, occupying posts of considerable responsibility in their own lands. Without preliminaries the conference went right to work and there followed three days of penetrating discussion of the problems of teacher training, elementary and secondary education,

and vocational and professional training. It was interesting to note the growth of these men and women since they had been with us in New York, their keeness in analysing problems, and the ways in which they were taking the lead in backward countries, and were gradually overcoming obstacles in advanced countries. The Geneva conference would have continued for weeks. No one wanted it to stop. A permanent organization was effected, recommendations were made for future meetings at intervals of from three to five years and a keen desire was expressed for the establishment of some sort of journal to provide better means of intercommunication and to facilitate coöperative investigation and research.

It is quite clear that educators in the United States can no longer afford to remain ignorant of developments in the schools of the rest of the world. There was a period when there was some foundation for the belief that we could better depend upon ourselves. We were almost alone in developing a school system to meet the needs of a democracy. The science of professional education was primarily American in its origin and its development. Training for the professions connected with teaching was a subject for university concern only in the United States. But these conditions have changed. Most countries in the world are now democracies, and school systems are being modified in accord. Contributions to the scientific study of education now originate in every land. Professional training for teachers and research in education are being assumed as university responsibilities in many countries. Just as the South was advanced by northern aid to the point where it excelled and became an example for the North itself, so from recently backward and static cultures, we shall in the future have much to learn.

The conference at Geneva was also a justification of the belief that the methods used by Dr. Buttrick a generation ago in the educational rehabilitation of the South are workable in the world situation today. All over the world there are graduates of Teachers College who are one with us, in training, in ideals, and in spirit. They have received much from us; they have much to give in return. It is encouraging to realize

that we have been able to achieve sympathy, good will and coöperation in this most difficult field of education—most difficult not only because it is based on the inexact sciences of psychology, sociology, and economics, but also because it involves those delicate fields of religion, government and politics—and if friendly international coöperation be possible in education, there is no reason why in time it may not be achieved in all branches and aspects of life everywhere in the world.

Respectfully submitted,

WILLIAM F. RUSSELL,

Dean

June 30, 1929

SCHOOL OF EDUCATION

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the Dean of Teachers College

SIR:

I submit herewith my report for the School of Education for the academic year 1928–1929.

During the year a total of sixty-two new courses was approved: 31 for the academic year, 25 for the Summer Session, and six for the Extramural Division. The following new diploma titles were approved: "Supervisor of Speech Correction," "Specialist in Curriculum Construction," "Teacher of Civic Education," and "Teacher of Adult Education for the Foreign Born." The following changes in diploma titles were approved: "Teacher in Normal Schools or Teachers Colleges" changed to "Teacher (specifically, Teacher of English, Teacher of History, etc.) in Normal Schools or Teachers Colleges"; "Critic Teacher in Elementary Schools" changed to "Critic Teacher," and "Leader of Parental Education" changed to "Leader of Parent Education."

It is of interest to note that the offering of the School of Education now includes activities in the field of psychiatric education. These consist of psychiatric consulting and social service assistance to the Teachers College schools, and in a limited way, to the students in Teachers College. They also include courses of instruction in applied psychiatry and opportunities for clinical experience through a plan of cooperation in a clinical consulting service for children outside of the schools of Teachers College.

In order to make provision for meeting the New York State requirements in methods of teaching which will be imposed on college graduates who seek certification in the high schools of New York State after September, 1930, a four-point course in methods and observation of high school teaching, *Education*

35A-36A, will be offered during the coming year. In this course the inexperienced undergraduate will not be at the disadvantage of receiving his training in methods in the same class with experienced teachers.

Headway has been made in the bringing together of the services provided in the various fields for the training of supervisors of atypical children. This gives promise of development which will place Teachers College in a position more nearly on the level of what the demands in the field warrant.

Various members of the School of Education have performed outstanding service in the field in the development of courses of study, school organization, administrative organization, and state legislation. One of the interesting developments out of these contacts in the field is the realization of the need for a recognition of common problems of educational leadership on the part of those who serve in important posts in the various branches of the public school system. This indicates a need for Teachers College to use whatever means are feasible to offset any influences in our present organization which may tend to deepen cleavages between various groups of educational workers and to use positive means of developing a consciousness of common responsibility for leadership.

Professor A. L. Cru took charge of the group of 17 students who attended the University of Paris during the Spring Session. Professor Sudre, Secretary of the École de Préparation des Professeurs de Français à l'Étranger, reports that although the time the students spent in the courses was considerably shorter than the usual period, it was possible to grant the Diplôme de la Sorbonne to two of the group. He has made helpful proposals which give a promising basis for improving the opportunities of our students.

The plan of coöperation between the Jewish Theological Seminary of America and Teachers College, whereby students in the Seminary may qualify through Teachers College for the degree of Bachelor of Science of Columbia University with a major subject in religious education, was formally approved.

There are now 536 candidates for the degree of Doctor of

Philosophy with majors in Education. Of this number, 166 were admitted during the academic year. There were no changes this year in the general requirements for this degree but the character of the examinations has been somewhat modified by including a departmental rating on the quality of the candidates. This rating is made from a personal scale developed from students who have taken the matriculation examination in the past.

During the June Intersession of 1929, there were 191 students registered in the course in curriculum research and 73 in the courses in comparative education.

The total number of students enrolled in the School of Education has been 3,985 (not including graduate students with majors in Practical Arts) as compared with 3,915 the preceding year. Of the total number of graduate students in the School of Education during the academic year, three were enrolled as unclassified students and 2,538* indicated their desire to become candidates for the Master's or the Doctor's degree. In addition, there were 1,444 matriculated unclassified students, of whom 1,027 signified their intention to apply for the degree of Bachelor of Science. In the preceding year, there were 2,413 candidates for the degree of Master of Arts or of Doctor of Philosophy, and 22 unclassified graduate students.

During the year the degree of Doctor of Philosophy was conferred upon 76 students, 49 of whom had taken the Master's degree at Columbia University. In the preceding year, 50 doctorates were awarded; in 1926–1927, 60; in 1925–1926, 58; in 1924–1925, 47; in 1923–1924, 40; in 1922–1923, 14; in 1921–1922, 19; in 1920–1921, 7; in 1919–1920, 23; in 1918–1919, 9; and in 1917–1918, 19.

For the academic year 1928–1929, 1,699 students in Teachers College received the degree of Master of Arts; 29 received the degree of Master of Science; and 510 received the degree of Bachelor of Science. The total number of Teachers College professional diplomas granted was 732. These diplomas are granted only in connection with a degree.

^{*3.338} including graduate students with Practical Arts majors.

Of the 3,341 graduate sudents, 342 held the Master of Arts degree from Columbia University; and 538 students held the degree of Bachelor of Science from Columbia University. A total of 456 institutions was represented, including the following:

Hunter College	243	Iowa State Teachers College .	13
College of the City of New		University of Ohio	13
York	110	Ohio Wesleyan University	13
New York University	73	Leland Stanford University	13
University of Chicago	68	Yale University	13
Syracuse University	63	Dickinson College	I 2
Wellesley College	58	Harvard University	I 2
Smith College	46	Iowa State University	I 2
Cornell University	40	University of Pittsburg	12
Mount Holyoke College	40	University of Rochester	12
University of California	40	St. Lawrence University	12
University of Wisconsin	39	University of Vermont	I 2
Vassar College	37	Amherst College	ΙI
University of Michigan	35	Colgate College	ΙI
New York State College	33	New Rochelle College	11
Ohio State University	33	Randolph Macon College	II
Adelphi College	32	Temple University	ΙI
University of Minnesota	32	Bucknell University	10
George Peabody College	30	George Washington University	IC
University of Oklahoma	28	Howard University	10
University of Missouri	27	Mississippi State Women's	
University of Boston	26	College	IC
University of Nebraska	25	Washington State College	IO
Oberlin College	25	Western Reserve University .	10
University of Texas	24	Alfred University	9
University of Pennsylvania .	23	Elmira College	9
Pennsylvania State Teachers		Johns Hopkins University	9
College	23	Lafayette College	9
University of Washington	23	Michigan State Normal School	9
Wesleyan University	21	New Jersey College for Women	9
Colorado State Teachers		University of Oregon	9
College	18	Rutgers College	9
University of Illinois	17	Texas State Teachers College	
College of Industrial Arts		(Denton)	9
(Denton)	17	Trinity College (Texas)	9
Northwestern University	17	Wilson College	9
University of Colorado	16	University of Alabama	8
Goucher College	16	Alleghany College	8
Kansas State Teachers College	16	Brown University	8

University of Indiana	16	Bryn Mawr College	8
Simmons College (Boston)	16	Dartmouth College	8
University of Denver	14	Franklin and Marshall College	8
Middlebury College	14	Kansas Agricultural College .	8
Colby University	13	Princeton University	8

In the choice of subjects other than education pursued by Teachers College students in other parts of the University, the following departments were represented:

English	369	Anthropology				24
History	218	Geography				24
Psychology	159	German				23
French	88	Astronomy .				22
Sociology	78	Phonetics				22
Comparative Literature	68	Government .				2 I
Mathematics	50	Economics .				19
Marketing	44	Stenography .				19
Philosophy	41	Music				16
Chemistry	38	Typewriting .				13
Public Law	36	Italian				ΙI
Spanish	32	Latin				10
Botany	26	Advertising				9

Thirty-four other subjects were chosen by a smaller number of students. A total of 1,603 class registrations shows the interest of Teachers College students in other phases of University work.

The following appointments have been made: Charles I. Lambert, M.D., as Professor of Psychiatric Education; L. Thomas Hopkins, Ed.D., as Associate Professor of Education; Grayson N. Kefauver, Ph.D., as Associate Professor of Education; Lois Hayden Meek, Ph.D., as Associate Professor of Education; H. Shelton Smith, Ph.D., as Associate Professor of Education; Lelah M. Crabbs, Ph.D., as Assistant Professor of Education; and Eleanor M. Witmer, A.M., as Assistant Professor of Education. It is a pleasure to announce the appointments of the following unusually large number of eminent educators as Visiting Professors: Samuel Angus, Ph.D., D.Litt, and D.D., and Henry Suzzallo, Ph.D., for the Winter Session; Ernest Horn, Ph.D., for the Spring Session;

and Thomas E. Benner, Ed.D., and Ellwood P. Cubberley, Ph.D., for the academic year.

The following promotions have been made in the Faculty of Education: Elbert K. Fretwell, Ph.D., from Associate Professor to Professor of Education; J. Montgomery Gambrill, A.M., from Associate Professor to Professor of History: Leta S. Hollingworth, Ph.D., from Associate Professor to Professor of Education; Paul R. Mort, Ph.D., from Associate Professor to Professor of Education; Charles C. Tillinghast, A.M., from Associate Professor to Professor of Education: Herbert B. Bruner, Ph.D., from Associate in Curriculum Research to Professor of Education; Adelaide T. Case, Ph.D., from Assistant Professor to Associate Professor of Education; Robert B. Raup, Ph.D., from Assistant Professor to Associate Professor of Education; Goodwin Watson, Ph.D., from Assistant Professor to Associate Professor of Education; Donald P. Cottrell, Ph.D., from Associate in College Administration to Assistant Professor of Education; Gerald S. Craig, Ph.D., from Associate in Natural Sciences to Assistant Professor of Natural Sciences; Ruth Strang, Ph.D., from Research Associate in Personnel Guidance to Assistant Professor of Education; Dorothy S. Thomas, Ph.D., from Associate in Child Welfare Research to Assistant Professor of Education; Clyde J. Tidwell, Ph.D., Director of Bureau of Publications, to Assistant Professor of Education; and Helen M. Walker, Ph.D., from Associate in Educational Measurements to Assistant Professor of Education.

Leaves of absence were granted to: Professor James F. Hosic for the Spring Session of 1928–1929; to Professors William H. Kilpatrick, Fannie W. Dunn (postponed from 1928–1929), and Gonzalez Lodge, for the Winter Session of 1929–1930; to Professors J. Ralph McGaughy, S. R. Powers, and Sarah M. Sturtevant, for the Spring Session of 1929–1930; and to Professors J. Montgomery Gambrill, William A. McCall, and Edward L. Thorndike, for the academic year 1929–1930.

The request of Professor Gonzalez Lodge to be retired from active service from and after February 1, 1930, was granted. Professor Lodge was appointed Emeritus Professor of Latin and Greek from the date of his retirement.

It is with regret that the resignations of Professor Franklin W. Johnson, President-elect of Colby College, effective June 30, and of Professor H. Shelton Smith, effective at the close of the Summer Session of 1929, are announced.

The Faculty of the School of Education is particularly appreciative of the step which you have taken through the series of Faculty meetings to improve the organization of the College. It is a pleasure to announce that there are under way two widely different instructional experiments that have arisen out of these discussions. One of these is a plan for training critic teachers which permits great flexibility in the choice of materials and in the allottment of time to practice work. The other experimental course is one in advanced psychology which will permit complete freedom on the part of professors and selected students in determining the entire content of a year's course. Each of these plans will permit the selection, from a variety of courses, of those parts which are particularly important in the development of the individual student.

Respectfully submitted,

PAUL R. MORT,

Director

June 30, 1929

SCHOOL OF PRACTICAL ARTS

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the Dean of Teachers College

Sir:

I submit herewith my annual report as Director of the School of Practical Arts for the academic year closing June 30, 1929.

The total registration of students in the Faculty of Practical Arts from September, 1928, to June, 1929, was 1,948, an increase of 162 over the total of 1,786 for 1927–1928, in which there was a decrease of 146 from the previous year.

There were 800 candidates for higher degrees and 1,148 students working toward the Bachelor of Science degree. The majority of the latter had graduated previously from normal schools and technical schools (art, music, nursing, etc.), which do not give standard Bachelor's degrees. With the exception of a small group of students from the affiliated Institute of Musical Art, all students in the School were admitted on the basis of four or more years of educational experience in study or in teaching after graduation from high school.

In addition to the 1,948 regular students under the Faculty of Practical Arts, 193 students of University Extension, most of whom were teachers in service, were admitted to sections of technical courses for which their preparation was equivalent to that of matriculated students in the same courses. The total number of students taking regular credit courses was 2,141.

Cards of admission were granted to 872 persons, not classified as students, who attended extension special series of popular lectures in fine arts and household arts and lessons in physical training conducted by departments of the School, in coöperation with the Institute of Arts and Sciences of Columbia University.

The departmental distribution of candidates for higher degrees in Practical Arts for the past five years is shown in the following table:

	1924-	1925-	1926-	1927-	1928-
	1925	1926	1927	1928	1929
Fine Arts	85	89	114	121	172
Household Arts	168	182	222	221	227
Industrial Arts Education	19	17	17	27	15
Music Education	42	41	54	72	85
Nursing Education	23	36	39	45	4.1
Health Education	9	14	19	18	31
Physical Education	81	106	96	131	167
Practical Science	53	64	56	35	52
Unclassified and General .	9		13	3	7
	489	549	630	673	800

In October, February, and June, 1928–1929, the Bachelor of Science and Master of Arts degrees were conferred by the University on 623 candidates whose major interest was in Practical Arts. Of 219 who received the Bachelor's degree, 200 were women and 19 were men. The Master of Science degree was conferred on 29 women, most of whom were students in Practical Science.

The number of Teachers College diplomas in Practical Arts conferred in 1928–1929 was 150, 62 to holders of Bachelor's degrees and 88 to holders of Master's degrees. The proportion of diplomas to degrees is annually decreasing because of increase in experienced students to whom the diplomas are of little value. In fact, the original value of Teachers College diplomas has so completely disappeared that they should be made to mean certificates of great proficiency or abandoned altogether.

Research in practical arts education and in practical science has progressed satisfactorily during the year in every department in the School. As in previous years, the greatest activity has been in food and nutritional research, for which over \$40,000 was contributed by foundations and manufacturers. Other lines of research were in (1) bacteriology applied to household and hospital practice, to school swimming

pools, and to food products; (2) efficiency and economy of household refrigerators and other modern apparatus for the home; (3) problems involving technique and apparatus of cookery; (4) problems of sanitary nursing; and (5) educational problems in various phases of practical arts. The staff in Nursing Education completed a survey of Lincoln Hospital. This was pioneer work and sets a high standard for other surveys which are much needed.

The distribution of all students in major fields is shown in the accompanying table. Ninety per cent of the students of the largest department, Nursing Education, are candidates for Bachelor's degrees because they come from professional schools which do not grant degrees. Fine Arts and Physical Education, which twenty years ago were little concerned with academic degrees, rank next to Household Arts in number of candidates for higher degrees.

DISTRIBUTION OF ALL STUDENTS IN PRACTICAL ARTS—1928-1929
(Figures for 1927-1928 in parentheses)

	Students for Higher Degrees	Students for Bachelor's Degrees	Total Students in De- partment	Rank in Total Number of Students	Rank in Number of Candi- dates for Higher Degrees
Fine Arts	172 (121)	207	379	3	2
Household Arts .	227 (221)	159	386	2	I
Industrial Arts .	15 (27)	4 I	56	7	8
Music Education .	85 (72)	151	236	5	4
Nursing Education	44 (45)	401	445	I	6
Health Education	31 (18)	25	56	7	7
Physical Education	167 (131)	132	299	4	3
Practical Science .	52 (35)	31	83	6	5
Unclassified	7 (3)	I	8		
	800 (673)	1,148	1,948		

I think it most important to report that every department of the School is keeping in close touch with the practical world outside these college walls. Most of our technical workers in art, household arts, and practical science are actively connected with practical affairs in these fields. Moreover, every department of the School is now represented by its staff members on important national committees concerned with education.

The demand for June intersession work in several fields of Practical Arts demands serious attention. For many years the School has offered June courses in family social work in Brooklyn and Westchester County, advanced landscape painting at Provincetown, Massachusetts, trade clothing construction at Pratt Institute, and field courses in family social work for public health nurses. This year we added a course in curriculum work in household arts. Courses in other lines of practical arts are requested by many students. There is a special demand for two-point courses given in the two weeks preceding the Summer Session. These are wanted by students who do not wish to carry the standard load of eight points in the Summer Session.

The Faculty of Practical Arts does not favor intensive courses which continue the Summer Session to the end of August or into September because it gives students no chance of relaxation before beginning the next school year as students or teachers.

The departments of Practical Science have reached a stage where they find their most advanced students hampered by the regulation laid down for higher degrees for students in education. The requirements for the Master of Science degree are satisfactory, but the degree is not popular because the Faculty of Pure Science in this University gives the Master of Arts degree for teachers of sciences. The requirements for the Doctor's degree through Teachers College emphasize education so much that the students of science would be led too far afield. The conclusion reached by the members of the Faculty of Pure Science after four years study of these problems is that a change in the regulations for Master of Arts and Doctor of Philosophy degrees through Teachers College would encourage the development of the graduate work in all departments which apply science to the practical arts.

The Trustees of Teachers College have voted the following

promotions and new appointments: Wilhelmina Spohr, A.M., from Assistant Professor to Associate Professor of Household Arts Education; Mary Evans, A.M., from Instructor to Assistant Professor of Household Arts; Helen E. Judy, Ph.D., from Instructor to Assistant Professor of Household Arts; Miles A. Dresskell, B.S., Director of Music, San Jose State Teachers College, San Jose, California, Visiting Assistant Professor of Music Education for the Winter and Spring Sessions of 1929–1930.

The following Professors of the Faculty of Education have been assigned seats in the Faculty of Practical Arts: Milton C. Del Manzo, Provost and Professor of Education; Paul R. Mort, Director of the School of Education and Professor of Education; and Charles I. Lambert, Professor of Psychiatric Education.

Professor Clifford L. Brownell, Ph.D., State Director of Health and Physical Education in Ohio, has been appointed Assistant Professor of Physical Education.

Assistant Professor Josephine A. Marshall, who for years has been a successful teacher of Household Arts Education, has resigned to become Director of the Department of Home Economics at Kansas State Teachers College.

Leaves of absence have been granted to Professors May B. Van Arsdale, Isabel M. Stewart, George J. Cox, and Associate Caroline E. Stackpole for the Spring Session of 1929–1930. Mr. Norval L. Church, Assistant Professor of Music Education, has been granted leave of absence in order to serve as Visiting Assistant Professor of Music Education at the San Jose State Teachers College, San Jose, California.

Respectfully submitted,

MAURICE A. BIGELOW,

Director

June 30, 1929

COLLEGE OF PHARMACY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report of the work at the College of Pharmacy for the year ending June 30, 1929.

Falling, as this report does, on the occasion of the onehundredth anniversary of the founding of this College, it seems appropriate that it should be based upon a brief review of the development of the institution up to the present time. The scholarly and informative history of the College by Professor Wimmer, which is readily available to all readers of this report, renders a general historical account unnecessary here, but an enumeration of the successive steps that have been taken in reaching our present position may well indicate our best course of procedure in planning a second century of progress.

It should be remembered that the immediate purpose of the founding of this College was not the establishment of a teaching institution, but of an association of active pharmacists for the protection and advancement of their professional interests, and the promotion of professional ideals and practices. It was inevitable that such an association should promptly reveal the necessity of some provision for the systematic education and training of the apprentices who were to inherit the responsibilities of their employers, and that the establishment of the pharmacy school should follow almost immediately.

For some years, the instruction consisted only of a series of lectures, at first in chemistry and materia medica, to young men occupied in their respective pharmacies during the day.

To these lectures they listened a second time the following year, after which they received an examination, chiefly oral. At first, there were no lectures in pharmacy, but in those days, when pharmacists made their own medicinal preparations, the daily duties of the students furnished ample practice in this branch, and employers gave much more attention to the instruction of their clerks than is now customary. There were no entrance requirements for admission to these lecture courses. The instructors served at a nominal compensation, and some of them, contributing their own apparatus and materials, were actually out of pocket as a result of their service.

In the second year, lectures in pharmacy were added, and during the next eleven years, these three courses of lectures, once repeated, comprised the entire curriculum. In the twelfth year, a course in practical botany was introduced, and this may perhaps be regarded as the germ of the subsequent laboratory work, although most of it was performed in the field. It was sixteen years later before any systematic lectures in botany were provided. A course of lectures in human physiology was added in 1869, the fortieth year of our existence. Three years later, genuine laboratory work was introduced into the curriculum. This step was first taken in the Department of Chemistry, and in 1883, eleven years later, a sister laboratory in practical pharmacy was inaugurated. Five years later, the study of the crude drug was introduced, in the form of a laboratory course in pharmacognosy, and in 1895, a well-organized microscopical laboratory course was added to the work in this department.

In 1878, for the first time, the lectures were supplemented by recitation courses, but only for those who elected to attend. Five years later, attendance upon these recitations was made obligatory on all students. In this same year (1883), the curriculum was practically doubled by discontinuing the repetition of the lectures of the first year, and establishing a graded two-year course. A third important development of this eventful year was the imposition of an educational admission requirement. Although this was of a rather

indefinite character and loosely applied, its effect was important and it was rapidly improved thereafter. In 1889, a great change was effected by the transfer of the lectures from the evening to the afternoon hours, recitations and special studies continuing to fill the evening hours. This change, which seriously interfered with the relations between the student-clerks and their employers, was not adopted without an earnest controversy in Faculty and Board of Trustees, and it involved some misgivings, even on the part of its proponents, but the result was highly satisfactory to all, most notably to the students themselves.

A notable feature of the development of the school, as above recorded, was the natural and logical manner in which it occurred. None of the changes was forced, all occurring in the form of a coordination of measures to conditions, as the latter developed. The College membership, comprising a good representation of the best element among practicing pharmacists, was responsive to the views of the Trustees, and at the same time kept the latter informed as to professional needs. The Trustees responded to the requisitions of the Faculty, the relations between these two bodies, in this College, always having been remarkably close and harmonious. Almost equally harmonious have been the relations between the Faculty and the representative portion of the student body. Modifications, improvements, and extensions of the curriculum have almost invariably met the approval of the students. as manifested in the steady response of larger attendance. Lastly, in this connection, I must refer to the State Pharmaceutical Association and its Board of Pharmacy. It is through these bodies that the pharmacy schools of our state have been kept in close and sympathetic relations with the large body of pharmacists and the interests which they represent. Although the College has never received grants of money or other direct public support, it has been richly favored with the best kind of support possible for such an institution, the contribution of earnest students from the pharmacists of our state. At an earlier period, most of the states were freely represented among our students, but these conditions

have greatly changed as other states have established their own pharmacy schools.

Under such favorable conditions as have been described, it could hardly be otherwise than that the student body should grow rapidly and healthfully. One building after another was abandoned to meet this growth until in the late eighties some of the bolder spirits in Faculty and Board believed that the time had come for providing accommodations and facilities, not only for a much larger attendance, but for extensive improvements in the scope and character of the curriculum. This proposition was revolutionary and there was a sharp division of opinion. The progressive party, although in the minority, carried the day and was then forced to assume the very grave responsibility of erecting the building that we now occupy. The controversy over this step was a long and doubtful one, and reflects the greatest credit on the progressive and efficient group who carried the movement to success. There were relatively few members of the Faculty or Board of Trustees who believed that all the space in so large a building could be properly utilized, yet since that time, we have been obliged to increase our accommodations by half, and now find it difficult to provide space for all the necessary work of instruction.

To add to this apparent difficulty, although in fact it was a necessary measure of ultimate success, the very definite entrance requirement of a year of high school work was proposed, at about this time. These two proposals led to what was probably the most critical situation that has ever existed in the institution, since it led to differences so great, in both Faculty and Trustees, as to verge closely on actual hostility and rupture. Not only was it necessary to win the fight on entrance requirements within our institution, but to overcome a far stronger and ruder opposition in the state organizations. The result was most fortunate. In the new building, all lines of work were greatly extended, the sessions occupied all day instead of the afternoons as previously, and special evening classes were organized. Added to all these burdens upon the convenience and comfort of the

students, it became necessary to make large increases in the fees for instruction, and it is not to be wondered at that only the boldest spirits were able to look forward with confidence to the happy result that has been realized.

But for the excellent standing of the school among pharmacists, this result could never have been achieved, for a large sum of ready money was an absolute prerequisite, and this was cheerfully donated by a large number of contributors. Similar support was rendered later, when it became necessary to add our annex.

The attitude of the College toward ethical standards and practices must not pass unnoticed. Whatever may have been true of individual members, the College organization has always been aggressively insistent on correct professional conduct. It has been a leader in movements to suppress the evils of adulteration and misbranding. Some of the most notable public activities in this direction have been instituted at its suggestion and its membership and Faculty have always been actively associated in national, state, and municipal activities in this direction.

Developments within the Faculty membership and organization are no less interesting than those in other directions. During the early years of the College, there was no faculty organization of any kind, a committee of the Trustees known as the "Lecture Committee" performing the functions of such an organization. The professors were mere lecturers, each coming and going with the hours of his duty, and rarely meeting with any other, and then usually by accident. Salary arrangements were made individually, one professor sometimes not knowing what another was receiving. Maneuvering for advantage in this direction was an almost continuous practice, and one that made the office of Trustee less pleasant than otherwise it would have been. Such practices also tended toward discord in both bodies. A still worse feature of the situation was want of correlation in the work of the different departments, leading to much overlapping and to the omission of some subjects which should have been taught.

Soon after entering the new building, a loose faculty organ-

ization was effected, with an official Chairman of the Faculty, and occasional meetings were held. The very obvious advantages of this arrangement quickly led to its improvement, and the meetings were regularly scheduled for each month. Coördination of instruction was effected and steadily improved. A regular scale of salaries was established, the salary being fixed for the position, rather than for its incumbent. After our affiliation with the University, a Dean and Secretary were appointed, an Associate Dean being added subsequently.

The affiliation with Columbia University was effected in 1904, at the direct suggestion of President Butler, and the arrangements were chiefly the work of himself and Professor Charles F. Chandler. The desirability of establishing a department of pharmacy, supplementing that of medicine, having been suggested to the President, he inquired into the character and standing of this College, believing it to be a wiser procedure to utilize and improve an existing organization than to duplicate one of this character. The result of his investigation having approved the wisdom of this course, he submitted, through Professor Chandler, a definite proposition to the Trustees. This College was not only favorably disposed toward such an arrangement, but was appreciative of the consideration that the President had shown. The terms of the affiliation provided for full educational cooperation, but independent financial management. The relations thus established have been faithfully and cordially maintained and, to a great extent, have made it possible for the College of Pharmacy to make the educational progress here recorded.

Since this affiliation, annual reports of progress have been regularly submitted, so that this part of our history need not be reviewed, although certain of its features require consideration, since they point the way to our future development, and indicate its essential requirements.

The development of instruction at this College has been dependent upon and largely controlled and directed by two fundamental conditions, namely, the apprenticeship relations of our students and our almost complete financial dependence

upon income from instruction fees. The former has compelled us to maintain a curriculum based primarily upon the requirements of training for practical service in the pharmacy, while the latter has prevented the extension of our work into those fields which can be supported only by supplementary income. Our problem then has been to go as far as possible in the direction of liberality of curriculum, with the means at our command. In other words, it has been neither desirable nor practicable for us to maintain our College upon the same footing as that of schools which are integral parts of liberally endowed universities or of those supported by public funds. Nevertheless, we have sought to provide instruction of that sort for the limited numbers who might desire it under existing conditions. At the same time, we have gradually extended and improved our regular College Course, with a view to an ultimate straight University connection. In accordance with this plan, we have at length placed our regular College class on the same footing, as to admission, that applies at Columbia College, and have provided a three-year curriculum that exceeds the requirements of the standard course of the American Association of Pharmaceutical Faculties. Supplementing this course, which occupies the great majority of our students, we provide a "University Course," which also occupies three years, including practically the same professional work as that of the other, but includes also a year of academic subjects, distributed through the three years. Although the fees for this course are considerably higher, they do not render the work self-supporting, and the extra accommodation required for those students results in the displacement for each of them of more than two students of the College Course. We are therefore under the necessity of limiting our University class to a small enrollment, the number varying from year to year, as conditions warrant. During a period of two years, owing to the existence of special conditions, we were able to admit all applicants to the University class, and during those two years, these matriculants represented a third of the total membership of their respective classes. At the end of that period we were again obliged to practice restriction.

the enrollment in the University class being limited to thirty students. In the fourth year, leading to the baccalaureate degree, the same conditions prevail, but intensified, and they are still further intensified in the fifth and sixth years, leading to the Doctor's degree; to so great an extent, in fact, that we are unable to accommodate more than two students, in this course, for each of the three departments.

Thus it results that this College, the recognized department of pharmacy of a great university, and morally bound to encourage higher ideals and advanced studies to the utmost, is compelled to discourage the ambitions of its students, and to induce them to be content with an inferior course of study.

The facts thus viewed should indicate clearly the direction of our future activity. Our principal object during our first century has been to provide competent pharmaceutical service, but this is not sufficient to satisfy the demands of the century to come. Society demands that its professional men, in all departments, should be educated, as well as professionally trained. The American Association of Pharmaceutical Faculties has decreed that, beginning with the year 1932, all of its member schools shall provide a minimum course of four years of instruction. Although, for reasons that we deem sufficient, we are not at present members of this association, we cannot-and would not if we could-be unconcerned regarding its proceedings. If some of its ideals are not at present practicable, at least for us, the ideals themselves are worthy and it is only a question of time when they will become practicable, and we must shape our policy toward meeting them. Our present decision is that a three-year course is an irreducible minimum for training a competent and reliable pharmacist, and that a four-year course is desirable as providing an opportunity for the educated pharmacist. We should therefore be in a position to supply a four-year course for all who desire it and we should encourage such a choice. It is a significant fact that the result of a questionnaire submitted recently to the students of the Rutgers University School of Pharmacy indicated that more than fifty per cent of them desired the four-year course.

The question that faces the College of Pharmacy of Columbia University, and that to which this report leads, is whether we are to meet this requirement of our second century as we have met that of our first. If so, we must begin operations at once. If we do not believe in premature undertakings or forced situations, we cannot afford, on the other hand, to evade our responsibilities when they arrive. In this issue, the University is as greatly concerned as its College of Pharmacy and there must be unity of purpose and effort between us.

Respectfully submitted,

HENRY H. RUSBY,

Dean

June 30, 1929

SUMMER SESSION

REPORT OF THE DIRECTOR FOR THE SUMMER SESSION OF 1929

To the President of the University

SIR:

As Director of the Summer Session I have the honor to submit the following report of the thirtieth Summer Session of the University which opened July 8 and closed August 16, 1929.

The report of the Registrar includes the statistical record of the session. (See pages 462–490.) Outstanding figures are: (1) the enrollment of 13,817 students as against 14,007 for the attendance of 1928; (2) the percentage of men and women, 30.6 and 69.4 respectively, showing an increase in the percentage of men which was 30.49 in 1928; (3) the wide territorial distribution with 9,634 students from outside of New York State—2,794 from the North Central Division (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin), and 333 students from foreign countries. Of the students in attendance 56.1 per cent had taken work at the University previously.

The noteworthy features of the figures just cited are, in the first place, a decrease in enrollment, 1.3 per cent, or in numbers, 190 under the session of 1928; and second, a slight increase in the number of foreign students.

Other interesting statistics of the Summer Session of 1929 include 764 instructors (496 men and 268 women), of which number 137 were assistants; in the Demonstration School there were 5 high school teachers and 18 elementary teachers. There was a total of 345 instructors from outside the University.

The distribution of the teaching staff by academic rank is as follows:

Rank	Vis	iting	L	ocal	T 4 1
	Men	Women	Men	Women	Total
College president	3				3
Dean	4	1	2		7
Professorial rank:					
Full	55	3	64	6	128
Associate	12		31	11	54
Assistant	11	5	38	12	66
Instructor	76	82	124	87	369
Assistant	46	47	30	14	137
Total	207	138	289	130	764

A comparison of this table shows that in the Summer Session of 1929, there were 258 of professorial rank, or 33.7 per cent of the total number of those giving instruction.

A total of 1,029 courses was offered. In addition to the regular courses there were approximately 125 lectures given. These are recorded in the Weekly Bulletins of the Summer Session.

The following exhibits were held throughout the session: National Child Welfare, *The Survey* and the Foreign Policy Association in University Hall and the Book Exhibit in the Auxiliary Gymnasium. Under the direction of Walter Henry Hall, Professor of Church and Choral Music, two orchestral and choral concerts were given. In addition to these concerts, the Juilliard String Quartet and the De Stefano String Quartet each gave a concert, and an organ recital was given in the Chapel.

During the session, Teachers College gave two orchestral and choral concerts by the All High School Orchestra and Teachers College Conducting Classes, two song recitals, one violin recital, a two-piano recital, and six community song meetings.

The Columbia Laboratory Players produced two early American dramas and the class in play production under Mr. Milton M. Smith gave two admirable performances.

Excursions were conducted in and about New York City with a total of 9,918 participants. The West Point excursion included 2,000 students, 770 visited the Washington Irving region, and 490 were taken to Atlantic City.

In the Summer Session of 1929 the Summer School for Women Workers in Industry, begun in 1927 by Barnard College, was continued. Forty-eight women were recruited for a seven-weeks' course and work was given in economics, science, English, and physical training. The work was even more successful than in the preceding year, and the students of previous years formed a nucleus of persons interested in the University as an aid to the education of industrial workers.

The attendance upon the summer sessions throughout the country, as reported by some thirty-seven institutions, is practically stable. The 1929 figures show a decline of 1,818 or 1.8 per cent. The Columbia decrease of 1929 as compared with 1928 was 1.36 per cent. I do not consider this figure significant. The larger institutions of the country seem to be on a plateau within which variations will appear like low hills or valleys. The postwar expansion or inflation in education seems to have spent itself and through the next few years I fancy that we shall see no marked change in registration.

Another change in attendance upon Summer Session is caused by the requirements of our professional schools. Many of these schools, in Columbia notably the Law School and the College of Physicians and Surgeons, have determined that the best interests of professional education and of the profession subsequently, demand smaller enrollment than in the past. The Law School in the past year decreased its attendance by one-third. This winter decrease was followed by a decline in the Summer Session registration in law.

The appended table showing housing conditions in 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, and 1929, still indicates a marked difference in the dormitory rates for men and for women. The average charge for men in the dormitories is \$6.34 per week; in the Barnard dormitories for women, \$10.00; in Johnson Hall for women, \$9.17; in Seth Low Hall, Teachers College, \$6.61; in Grant Hall and Sarasota Hall, Teachers College, \$7.00; and in Whittier Hall, Teachers College, \$17.00 with meals.

HOUSING—DORMITORY ACCOMMODATIONS

SUMMER SESSION

Men's Dormitories

				Numi	Number of students accommodated	stude	nts					Roo	m rent bas	per wee is appri	ent per week on six a basis approximately	Room rent per week on six weeks' basis approximately		
	1561	1922	1923	1924	1925	1926	1927	826	626	1261	1922	1923	1924	1925	9261	1921 1922 1923 1924 1925 1926 1927 1928 1929 1921 1923 1924 1925 1926 1927 1928 1929	1928	1929
Hartley Livingston Morris Tompkins Furnald John Jay Total Men	307 290 80	314 308 115 	317 314 296 	307 314 317 305 302 300 292 271 293 290 308 314 301 304 299 257 271 283 80 115 131 296 282 283 285 277 267 252 296 282 283 285 277 267 252 401 475 470 401 475 470	302 304 283 	300 299 131 285 	292 257 277 401	271 271 267 475	292 283 470	\$6.00 \$5.41 6.00 6.00 5.41 6.00 6.00 6.00 6.00	\$6.00 6.00 6.00 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	6,00 \$6.00 \$5.41 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.0	\$5.75 5.75 5.75	\$5.66 5.62 6.11	\$5.53 5.56 7.35 5.96	307 314 317 305 302 292 271 292 \$6.00 \$6.00 \$5.41 \$5.75 \$5.66 \$5.53 \$6.26 \$6.27 \$6.27 \$6.27 \$6.27 \$6.27 \$6.26 \$6.26 \$6.26 \$6.27	\$6.26 6.27 6.94 7.40	\$5.95 5.98 6.37 7.07

Women's Dormitories

**Seth Low								Ì										
_	270	292 464	351 475	364 463	363	307 476	270 292 351 364 363 307 382 335 335 462 464 475 463 492 476 459 467 498	335 467	335 498	: :	\$7.12	\$7.17 14.33	\$7.12 \$7.17 \$5.85 14.33 14.33 14.50	\$5.85 14.50	\$6.61	\$6.60 15.00	270 292 351 364 363 367 382 335 335 335 335 335 335 335 335 335 335 335 335 335 335 345 \$5.85 \$5.85 \$6.61 \$6.61 \$6.61 \$6.61 462 464 475 469 476 498 14.33 14.30 14.80 14.83 15.00 14.83 17.00	\$6.61
	732 756	756	826	827	855	783	826 827 855 783 841 802		833									
Hewitt Brooks	102	109	116	119 235 102 109 116 117 109 113	119	235 113	102 109 116 117 109 113 113 110	236	238 110	7.50	8.18	8.19	8.17	\$10.18 8.17 \$-61	\$10.06	\$10.06	8.19 8.17 9.61 9.62 9.53 9.53 10.00	\$10.00
	102	60I	911	111	228	348	109 116 117 228 348 352 346	346	348									
Johnson	366	278 102 117 117 497	142 152 137 138 143 417 433 417 433	278 353 354 278 353 354 278 353 354 354 278 359 359 359 359 359 359 359 359 359 359	358 183 77 127 745	353	278 278 358 353 354 345 355 88 142 152 183 109 33 24 102 137 138 77 22 11 9 366 497 417 433 745 438 476 389 388	345 33 II	355	355 6.00 9 9	6.00	7.17 7.17 8.19	7.20	\$8.20 7.04 6.90 7.99	\$9.02 5.93 6.40	1	\$8.67 \$8.74 6.20 6.25 5.66 5.31	\$9.17
- 1			7		1020	7000	y 2	35/1	ر م م									

Men, Women, Couples

**Bancroft 186 239 232 129 123 120 85 113 140 \$7.70 \$9.17 \$6.86 \$6.86 \$7.00 \$7.00 \$7.00 \$7.00	186	239	232	129	123	120	85	113	140	:	\$7.70	\$9.17	\$6.86	\$6.86	\$7.00	\$7.00	\$7.00	\$7.00
Grant Sarasota	: :	: :	:::	: :	: :		,	31	27				: :	: :	::	::	7.00	7.00
Total men and women.	186	239	232	186 239 232 129 123 120 85 171 195	123	120	85	171	195									
Total men and womin dorming 2338 2518 2394 2840 2704 2981 2992 3061	2063	2338	2518	2394	2840	27042	2 1862	2002 3	190									

Off-Campus Rooms

	1921	1922	1923	1924	1925	1921 1922 1923 1924 1925 1926 1927 1928 1929	1927	1928	1929
Women	\$8.60 8.60	\$8.60	\$8.64	\$8.50	\$8.60 \$8.64 \$8.50 \$8.30 \$8 8.60 7.60 7.17 7.50 7.64 7	\$8.97	\$8.97 \$8.72 \$8.51 7.69 7.15 7.47	\$8.51 7.47	\$8.66
		Summary	>						
	008,11	12,567	12,675	016,21	12,730	13,219	13,857	14,007	13,817
Number of students from outside N. Y. C. Percentage of students from outside N. Y. C.	9,366 9,817 9,872 10,237 10,014 10,353 10,864 11,155 11,110	9,817	9,872	10,237	10,014	10,353	10,864	11,155	11,110
accommodated in dormitories		23.8	25.5	23.3	28.36	22.03 23.8 25.5 23.3 28.36 27.68 27.45 26.82	27.45	26.82	27.55

*The rate given here includes room and board.

**Six weeks' rental at this figure entitles to eight weeks' occupancy.

The summer sessions throughout the country, while they have warm supporters among educators generally, have also a certain number of critics. The charges brought against summer sessions are chiefly two: I. The quality of work done in the summer sessions is lower than that done in the winter. 2. The possibility of taking a Master's degree in four summer sessions has debased that degree.

I am convinced by personal teaching experience, by numerous objective studies made throughout the country, and by the overwhelming testimony of the instructing staff that the quality of work is not only not lower but in many courses, among them those of undergraduate grade, the quality of work is actually higher than in the winter.

The criticism regarding the Master's degree is, in my opinion, misdirected. The Master's degree, or any higher degree, should be granted on two counts, one being residence and the other control of subject matter as shown by research and examination. The stabilization and restriction of the Master's degree depend, in my opinion, not upon a minimum residence but upon the selection of students who are admitted to Master's work and upon the careful determination of their actual achievements prior to their certification for a degree.

Respectfully submitted,

John J. Coss,

Director

November 25, 1929

UNIVERSITY EXTENSION

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As Director of University Extension, I have the privilege and the honor to present herewith the report for the academic year ending June 30, 1929.

University Extension at Columbia represents in its various branches of service, the offering of the University in adult education. I have pointed out elsewhere that Columbia has been the pioneer among institutions of higher education in the development of continuation study for adults, first, through its liberal class instruction, then through the Institute of Arts and Sciences and the system of short lecture courses—the lyceum of early Extension teaching—and, finally, through its Home Study. A report, therefore, of University Extension must give consideration to each one of these branches through which it operates.

During the past winter the question of the suitable development and of an appropriate designation of University Extension, particularly class instruction, has been freely discussed. Although no definite steps have been taken nor any exact action determined upon, the general result has been a recognition of the subdivisions of the Department and the dignifying of the division of class instruction with the appropriate title "University Classes." These classes frequently, and in fact uniformly, give academic credit toward the degrees of the University. There exists therefore, although without formal organization, a University college of the broadest possible type. University Extension has always planned through its class instruction to give opportunity for intellectual improvement regardless of the possibility of such attainment leading to academic recognition. It does not have any authority to

establish a curriculum leading to a degree nor is it given the right to confer degrees. The courses offered, however, which are established and maintained according to academic standards, may be accepted by the schools of the University and count for credit toward the degrees which it is the right and the privilege of such schools to confer. University Undergraduates who are under the care of a Committee of the Council may obtain the degree of Bachelor of Science by using these University Classes carrying credit. Although class instruction has been given in credit and in non-credit courses, emphasis has not been laid upon credit. In fact, intellectual attainment has superseded credit as an object of endeavor and credit has simply served to dignify the course and give it full academic classification and rank.

In consequence of the relationship which University Extension bears to the various schools of the University, it has become necessary that our records should be prepared and maintained with great efficiency and accuracy. The Department of Admissions, the Registrar and his associates, and the advisers in University Extension all of whom feel the responsibility as to the students who expect to claim credit coöperate most closely in this important detail of University administration.

We may illustrate the importance of this subject by a reference to certain statistics of the women students. Thus the total number of women in classes in University Extension who expected in the past year academic recognition was 394; the number of University Undergraduates was 24 and those preparing for this status numbered 91. As many as 117 women were studying for pre-professional credit during the past Spring Session and these were grouped as follows: 35 expected to enter the School of Business; 25, the School of Journalism; 8, the School of Medicine; 3, the School of Architecture; 5, the School of Law; 1, the School of Dentistry; 1, the School of Library Service; 1, the Department of Oral Hygiene; 38, Teachers College. Seven students were preparing to enter Barnard College. The number of women students looking forward to certificates was 149. Four of this number were

studying for the Certificate in Accounting, and 145, for the Certificate in Secretarial Studies.

It will serve our purpose best if in considering class instruction we review the work for the year in the various departments of study. It will be impossible to refer to all the subjects and I shall mention, therefore, only matters of special significance.

Under the supervision of the Department of Agriculture, University Extension has been developing courses in landscape architecture, which are attracting many students in this field. Just what form this development should take is worthy of careful consideration. I would suggest that a special committee be appointed to study this question. The work is under the direction of Professor Hugh Findlay, who during the year has been made a Fellow of the Royal Horticultural Society of England. The subject will be presented in a series of ten courses on history of landscape architecture, elementary landscape design, intermediate landscape design, practice in landscape design, advanced landscape design, landscape construction, plant materials, elementary planting design, advanced planting design, freehand landscape sketching. With good fortune the University has been able to set aside suitable drafting room facilities in the Schermerhorn Hall Extension.

The Professor of Botany reports the presence in his Extension class of students of unusual ability and promise. One becomes the head of the biological work in the State Normal School at Cortland; two will enter the medical profession; one has received a Graduate Scholarship in Botany in the University of Chicago; and two will enter upon graduate work in botany at Columbia. This testimony is important as indicating the type of students attending University Extension classes.

In chemistry we offer the usual fundamental courses and beyond these, advanced courses which are of interest to specialists in this field. Continuation study of an advanced character, attractive to those who are already trained, is a legitimate endeavor of Extension and will be developed as rapidly as the demand appears and the means are at hand.

The largest number of students is found in English. This work is under the skillful direction of Professor John H. H.

Lyon, who is an enthusiastic supporter and apostle of Extension. The numbers—1,344 in academic credit courses, 435 in creative writing, 490 in preparatory courses, 296 in courses for foreign students, 444 in oral composition, 401 in graduate courses—indicate the part this subject takes in University Extension enrollment. In the coming year, Mr. Milton Smith will offer two courses in stage technique and stage direction, and Miss Louise Gifford will give a course on the function of the body in acting, thus strengthening the work in drama. I must specifically mention the fine work which has been carried on by Mrs. Estelle Davis in her rehearsal class, which produced three early American plays, and, through her Laboratory Players, which produced "Macbeth" with marked success.

We should mention also the University Extension dramatic organization entitled "The Morningside Players," which under the direction of Professor Hatcher Hughes has produced four plays written in the class on play writing. These were staged and acted by the students of the University. It is our earnest hope that in the near future Columbia will have its own theater with adequate endowment. Through its University Classes the University should become the natural center for thorough preparatory work in play writing and play produc-The non-credit courses in creative writing will be strengthened by the addition to the staff of Mr. Joseph Auslander, who was awarded this year the Golden Rose for the most distinguished work in poetry. Mr. Dewer Lindley, associate editor of Collier's Weekly, a prominent writer of short stories, will have one section in short story writing. I refer with great satisfaction to the Writers' Club which has a membership of over 300. The Club publishes an anthology entitled Copy, has direct association with the courses in writing, and draws its membership therefrom. This indicates in a very brief summary the splendid service rendered University Extension students by the Department of English.

The courses in business are virtually supplementary to those offered for the degree in the School of Business and they are, therefore, in many instances given full academic credit. The total student registrations during the past academic year numbered 5,832, an increase over 1927–1928 of 429.

The Department of History reports an increase in the number of students in advanced courses indicating persistent attendance of several years on the part of these Extension students. A constituency of this character which is also noticeable in other subjects forms automatically a University college. This view is strengthened by the increase in the number of men classed as University Undergraduates, candidates for the degree of Bachelor of Science, under the University Council. With rare exceptions these students are well above the average in attainment and ability. They form the background of our University Classes, which we expect to dignify with academic recognition in various ways, although they may not immediately become part of an established school.

The reports of the three Departments of Romance Languages uniformly indicate persistent and active interest in the development of each of the three subjects, French, Spanish, and Italian, in University Extension. Mr. Sisson, who is in charge of French, tells of the success of placement tests which will be continued in the coming year. Again, the Institut des Etudes Françaises which finds its origin in University Extension, has had remarkable attendance at its meetings under the leadership of M. de la Rochelle. In the coming year the new courses will be: history of French literature up to 1900, by Professor Gerig; French phonetics by Dr. Vaillant; and introduction to Romance philology by Dr. Taylor.

The aim of Professor Callcott, and his associates in charge of Spanish, is to place the emphasis in their instruction on oral and written composition, and through a study of the language to afford a presentation of life from the standpoint of the Spanish race.

In Italian, Mr. Marraro reports an increase in registration and points out that out of 95 colleges and universities of the United States, included in the report of the Italian Teachers' Association, University Extension at Columbia is one of six having over 100 students in the spring of 1928-1929. A general revision of the curriculum has been accomplished during the year. Italian conversation and oral drill will serve as a sup-

plement to a number of the elementary courses. An attempt has also been made to place Italian uniformly among the modern language requirements alongside of French, German, and Spanish. The Italian student organization of University Extension, known as the Grocchio Goliardico, has been formed with the purpose of building up the study of Italian through social and intellectual exercises, and it is hoped that this organization will do for Italian what has been accomplished for French by the Institut des Etudes Françaises.

The Department of Psychology maintains a number of graduate courses in University Extension which are of the same quality as those offered in the other parts of the University and are accepted on an equal basis as satisfying the requirements for the graduate degrees. The most significant change in the offering of this department was the introduction, among the graduate courses, of a course in clinical psychology at the Neurological Institute which supplements the course given at Randall's Island. The former course is mainly concerned with problem children and adults and that at Randall's Island has to do with mentally defective children. We hope to continue these courses in so far as the financial return will justify our doing so, especially as they offer field work which is greatly needed for graduate students.

Among the undergraduate courses, the Department intends to make the content of the course in general psychology the same as that of the similar course in Barnard College and Columbia College so that there may be no difficulty as to the matter of credit.

In response to requests of several fire insurance companies of New York City, Columbia University offers a two-year collegiate course for young men who are graduates of high schools and who desire training in this line. These companies pay all expenses such as tuition, books, and laboratory fees, and a monthly stipend during the school year, and double this amount during the summer months. The students in turn must spend the forenoon, from 9 to 12, at the offices of the various companies for at least five days in the week. They are given the afternoons, evenings, and Saturdays for their

courses at Columbia University. By action of the University Council on October 16, 1928, University Extension was authorized, on the approval of the School of Business, to issue a Certificate in Fire Insurance to students who have completed the two academic years and obtained a total of 56 points.

University Extension offers courses in stenography and type-writing with the intention of supplying students of the University with the opportunity of training in these subjects. It is not our intention to rival the business schools of the city in providing these courses nor do we feel that they should be given in a few weeks; hence they are assigned to a period of at least a year and the work is conducted with the idea of furnishing abundant practice. These subjects form also an important part of the training in secretarial studies which has always been a feature of instruction in University Extension. The Department has been experimenting in the past year with predictive and educational tests so as to determine the value of the work as carried on in these subjects in University Extension.

As I close the enumeration of the various subjects offered in University Extension, I am impressed with the fact that our program is largely on the side of literature or the humanities. We do not offer many scientific or technical courses. Naturally there are exceptions. We do offer many courses in business, in secretarial studies, also in physics, chemistry, and geology, but in the field of applied science our offering amounts to very little. The students who select courses in physics, chemistry, or geology are largely those who are looking forward to entering a school of medicine or a school of dentistry. There is a feeling among those who are interested in the development of University Extension that the various departments in the field of applied science would find their work stimulated, resulting in an increase of regular students, if they should offer courses to those who can come only incidentally to the University. The atmosphere of helpfulness toward those interested in the subject reacts to the general advantage and progress of the Department.

We regret to record the resignation of Miss Katharine C. Reiley who withdrew on July first from her position on the administrative staff of University Extension. During the past fifteen years, Miss Reiley has been connected with the work of University Extension, first as Instructor in Classics and as an Assistant to the Director. Miss Reiley was promoted in 1917 to an Assistant Professorship in Latin and Greek and in 1925, to the position of Associate Director. In this career, Miss Reiley earned a most enviable reputation both as a teacher and as an administrator.

In the year 1925, with the purpose of enabling students who enroll in February to complete one full academic year of preparation for a law school before the following September and so meet the requirements for admission, a number of classes serving as an Intersession were established, which with the courses in the Spring Session and the Summer Session enables students to fulfill a year of residence. This Intersession, due to the more rigid standards of admission to professional schools particularly of law and medicine, running between the close of the academic year and the beginning of the University Summer Session, has also been of great use to students of Seth Low Junior College and to students in University Classes inasmuch as it enabled them to complete courses, which they began in the Spring Session, before the summer vacation. These are Extension classes equivalent in every way, including time, to courses of other sessions but offered between the Spring and Summer Session. No formally established Intersession exists. The courses temporarily serve a most useful purpose. The number of students attending in 1928-1929 was 202.

For the past two years we have carried on morning classes for workers in industry. The charge for each course was set at \$1.00 so that the students of small means might have an opportunity for intellectual improvement with little if any tax upon their resources. The balance of the fees was met by gift as we do not possess the right of using the University as a means of philanthropy. This is the position which the administration of University Extension assumes inasmuch as we regard it as unfortunate to place students in the position of objects of philanthropic interest.

The classes offered during the past year were as follows: economic history of the United States through the Revolution; economic history of the United States from the Revolution to the Civil War; economic history of the United States from the Civil War to the present day.

The extramural courses of University Extension classified as those outside of New York City have been under the care of a special Assistant to the Director, Mr. Joseph M. Murphy. The development of these courses during the past two years has been slow but encouraging and indications point now to their extension into commercial, industrial, and social groups so that they will become a well-established phase of Extension service.

For the most part the extramural courses at the present time are employed by teachers who desire to improve their opportunity for promotion or obtain at some date academic recognition. Beyond this, we have had several requests from other groups who wish to satisfy a particular educational need. Courses in American literature and United States history were carried on at Newburgh under the auspices of the superintendent of schools for the benefit of his teachers; in Jersey City, we offered a course in phonetics under Miss Hannah Creasey. A course similar to that of Miss Creasey's was carried on by Mr. William Tilley at South Orange. Another specialized class, restricted to buyers, was that in persuasive speaking conducted by Miss Lucille Marsh at Hahne's Department Store in Newark.

At the request of the New York Telephone Company, two classes were offered at their new building on West Street for the purpose of training the personnel of their staff in letter correspondence. One class was intended for those who dictated the individual letters; the other class was planned for the stenographers who handled the correspondence. This is the type of course which University Extension is always ready to establish as it desires to be of help to business firms in the continuation classes which they often maintain.

A class in comparative literature offered by Professor Angus Burrell was organized under the energetic direction of Mrs. J. N. Glass of Stamford, Connecticut, during the Spring Session. This was given in the Masonic Building under the auspices of the Young Women's Christian Association, and proved most successful.

It has always been the desire of those interested in University Extension to place libraries in certain communities for the advantage of students who are taking extramural courses. Arrangements were made with the Library staff during the year to send package libraries to Newburgh and to Yonkers. It is hoped that this service will be continued and extended during the coming year.

University Extension courses offered at extramural centers have not hitherto obtained the full support of the various departments of the University. A different spirit, however, has been observed recently and it is evident that the departments are willing to coöperate in offering extramural courses for the advantage of those who cannot attend classes at Morningside Heights. The popular departments are English and History with evidence of growing interest in Psychology. Extramural courses must correspond academically to those offered at Morningside Heights. Instruction must be given by men of similar standing and opportunities for study and for wide reading must be at hand. The package library system must be employed by University Extension when library facilities are lacking.

Our most important center of extramural courses is located at Newark, New Jersey, in the rooms of the Young Women's Christian Association. Seven courses were offered and all of them were successful. I should mention in particular: masterpieces of English poetry and prose from Chaucer to Thomas Hardy, for which 29 students registered in the Winter Session and 36 in the Spring Session with Mr. Vernon Loggins as the instructor; and a course in the recent history of the United States for which 72 students registered in the Winter Session and 57 in the Spring Session with Professor David S. Muzzey as the instructor. The distinction of these courses and instructors indicates the purpose of Columbia to offer its very best in extramural centers.

We are indebted to the Public Library of Newark for assistance inasmuch as it has placed aside, on the reference

shelves, books needed for the various courses. Thus the library problem for our center in Newark is fully solved.

When in September, 1928, University Extension began its thirteenth year in Brooklyn, conditions were materially different from those of the preceding years. With the organization of Seth Low Junior College, University Extension courses. which had been given in the morning at the Long Island College Hospital and at the Brooklyn Law School, were transferred to the afternoon and evening hours; University Extension work, therefore, assumed in Brooklyn the form which is so well understood in other parts of the University. The program of courses, which was formerly limited to students preparing for medical schools or law schools, was enlarged so as to serve the needs of those who as mature students were looking for an opportunity for intellectual attainment through collegiate and university courses. The rooms in the building of the Brooklyn Law School which are used during the day by the Seth Low Junior College serve during the afternoon and evening for the courses in University Classes. In this way a center of Extension work has been continued in Brooklyn under most satisfactory auspices. Much time and effort have been given to making the work of the University Classes known to the people in Brooklyn. We can readily see how the cooperation between the University Extension classes and Seth Low Junior College will prove mutually helpful in the operation of both branches of Columbia University service in Brooklyn.

The second division includes Home Study and the Institute of Arts and Sciences. In the former there are now 10,000 students who are taking courses without any expectation of academic recognition. It is the policy of University Extension not to encourage the enrollment of students in Home Study courses if they are able to attend classes in the late afternoon and evening. On the other hand, it is interesting to note that a number of students in Home Study have become so much interested in the University Extension courses that they have turned aside from Home Study and have entered the established classes.

During the past ten years the University has established and conducted courses for students who could not attend the regular classes, but must carry on their educational work through Home Study. The year 1928–1929 closed with a student registration in Home Study for twelve months of 9,282. To these were offered 176 courses, all of which were carefully passed upon and approved by the University departments of instruction. The staff consisted of 116 instructors and supervisors all of whom were regular members of the instructing force of the University. The office force, exclusive of instructors, numbered 81 and there were 60 representatives of the Department in the field. Inquiries numbering 96,649 were received by the University for information concerning Home Study.

Home Study is located in two private houses, planned originally as residences, on 117th Street between Amsterdam Avenue and Morningside Drive. Here the administrative and educational work is conducted. The Department also uses part of the unfinished attic floor in the School of Business building where the staff answers the inquiry mail and where the shipment of informational material is taken care of and also where is centered the direction of the field staff. The large storeroom in the basement of the same building is also used. In twelve months, the Department supplied to students texts and materials for instruction which cost approximately \$75,000. The bill for postage for the ordinary conduct of the correspondence outside of the circularizing operations amounted to more than \$25,000. The total budget is now more than \$600,000 and the Department as a whole is operated so that it is not a drain upon the University finances. There is no reason to believe that in the development of Home Study any unusual demands will be made upon the University for financial help beyond the amount of the revenue which the Department itself places in the University Treasury. I desire to quote from the report of the Associate Director in charge of Home Study:

During this ten-year period Home Study has gone through interesting evolutionary stages. The present situation indicates clearly possibilities

which may or may not be realized, depending upon the extent to which the University wishes the Department to develop while the present recurrence of interest in adult education in America persists. Certainly there never was a time when the adult public in this country was as extensively informed in the possibilities of educational advancement as at present. Although instruction by correspondence is only one mechanism in adult education, it is as old as any and there has been enough experience with it as a mechanism to be sure of its strong points as well as its weaknesses. to appraise both its assets and liabilities, and to mould its progress in a given institution accordingly. By the year 1919, when Home Study began its work, it was generally recognized that, in spite of certain inherent handicaps, instruction by mail could be carried on successfully from the standpoint both of the instructor and of the student. To some extent, all correspondence instruction has come into disrepute because of abuse and exploitation on the part of some conscienceless and unscrupulous commercial institutions. The universities and the better commercial institutions, however, have continued a demonstration of the efficacy of this teaching mechanism so that it will likely not only persist in the future but, in combination with the motion picture, radio and television, undergo developments which have never been contemplated with any great degree of seriousness up to this time.

I

It is no easy matter to determine what the public wants, for often it doesn't know that itself and frequently, when it gets what it wants, discovers that it didn't want it after all. Furthermore the public is fickle and will want something very badly one day and by the next will have lost all interest. A university has a responsibility to guide public thought; in correspondence instruction this position has been usurped by the commercial institution almost entirely, for the colleges and universities which conduct instruction by home study have limited themselves almost entirely to the paralleling of residence courses by correspondence to provide means of acquiring academic credit toward degree.

So what the public wants in the way of recognized instruction by Home Study is often difficult to discover. We know a relatively small number covet college degrees; we know a relatively small number would like to complete study begun in the past, and interrupted for a variety of reasons which need not be catalogued here; we know a great many are desirous of extending their intellectual horizons for purely cultural purposes; and we know, from our own experience, that from the practical demonstrations afforded by the commercial correspondence institutions, that a great many are interested in any form of study only because of the possibility of economic advancement.

To adjust these groups—and there may be others—to what we have to offer or can provide is no small task. In the first place we believe the selection of the student is the crux of the Home Study problem. Our Department

wants students, but first, last and always, we want qualified students, and the selection of individuals whose educational background or previous condition of academic servitude is sufficient for them to get from our department what they really want and can use to advantage, is the biggest single task we face. . . .

П

From the outset we have proceeded on the assumption that every course offered by Home Study must have the approval of the University department of instruction concerned with the teaching of the subject of that course throughout the University as a whole. This has thrown the responsibility for Home Study teaching right where it belongs—upon the University departments of instruction. If we had proceeded otherwise we would have organized within Columbia University an independent educational unit without educational authority of responsibility. . . . Our experience in this respect has been most illuminating. With some departments we have had no difficulty. Others have been rigidly opposed to engaging in Home Study instruction, some of them stubbornly and unreasonably so. The majority, however, have been entirely willing to make experiments and in practically every case have been favorably impressed with the results.

Ш

The single problem which faces us every day of our lives is the prompt and accurate handling of detail upon which the success of the Department ultimately depends. In the ten-year period which has just closed, our various functions have naturally fallen into several well-defined channels. We must give the public information, we must select and admit students, we must teach them (with all that that involves), and we must be reasonably well equipped and comfortable in doing it. Accordingly we have subdivided our work to carry out these separate demands adequately. A separate corps of clerks sends out informational material. Another department directs, and keeps constantly in contact with, the field staff. A representative of the Admissions Office passes upon the application of students; a representative of the Registrar registers students; a representative of the Bursar receives their fees. For the consideration of educational problems of the Department as a whole there is an educational supervisor who heads up the separate departmental supervisors and instructors. A large corps of stenographers and typists is constantly at the service of instructors. The extensive and important records are maintained by a corps of filing clerks and still another staff handles incoming and outgoing mail and supplies. The Columbia University Press orders and ships all required texts, supplies, and study materials.

To maintain personnel of a standard of excellence that will enable us to discharge the demands constantly made upon the Department as a whole is no easy matter. We are an educational mechanism with the operation of certain business functions constantly before us. Furthermore we have no academic calendar and proceed on our way without interruption twelve months in the year. As members of the various staffs to perform these functions, therefore, we require individuals who perform work of a different type and under different conditions than is the case elsewhere about the University. Otherwise our relationship with our students breaks down or is unsatisfactory. The recognition of this fact by the University and the making of the necessary adjustments is absolutely essential for the successful and smooth functioning of the Department as a whole both as to type of personnel and salaries paid for various types of service performed.

IV

To provide adequate Home Study instruction is an expensive job. It cannot be done cheaply. Mention has already been made of the necessity for the prompt and accurate handling of all details of operation. The public has come to expect a certain degree of excellence in everything that Columbia undertakes. At the end of ten years, by surmounting difficulties such as lack of finances for developing purposes, inadequacy of physical space and equipment and the attendant handicaps which both these bring, the Department is in a position where income will exceed expense permanently. Two things are necessary: first, the acquirement of a building which will permit of the proper housing and efficient organization of the various routine functions necessary to our successful operation and normal growth; and second, now that income does exceed outgo, a change in the way in which Home Study finances, in relation to the annual University budget, are regarded. We have been growing rapidly and the type of financial problem which this growth has caused is something entirely foreign to University experience hitherto. The financial conduct of Home Study and its relationship to the University budget should be given careful consideration and study.

Specifically, at the end of ten years, we find several important matters staring us boldly in the face:

- (I) Procuring of adequate quarters which will allow for development and be suitably constructed and arranged to meet the conditions of our work.
- (2) Consolidation of our central educational functions into a homogeneous and unified corps of instructors who will recognize the advantages and limitations of teaching by the Home Study method and who will govern themselves accordingly.
- (3) Continued study and readjustment of routine which will enable us to take advantage of our growth as it is reflected in our handling of detail problems in bulk.
- (4) Extending our activities in the field so as to offer constantly a wider informational service direct to the public.

- (5) Expansion of our curriculum both in subjects strictly liberal arts in character, and along lines where a direct utilitarian interest is involved.
- (6) Continued investigation in the problems of selection and admission of students and their continuation of study after registration.
- (7) Periodic and constant examination of courses already offered for necessary revisions so as to give the public the latest procurable in a given subject.

The report of the Registrar is always an illuminating document so far as Home Study is concerned. An examination of Table XVI of that report shows that the average age of students registered in the last academic year was slightly above thirty-five years. Approximately sixty per cent of our students are men. Approximately eighty per cent have finished high school. Practically all professions and vocations are represented in our registration. Students are enrolled from every state in the Union, from every continent on the globe and from islands in all parts of the seas.

The courses for which these students apply cover a wide range—from art to zoölogy. English, with its various ramifications, remains the most popular. The social sciences, business, mathematics, and languages follow in that order. It is interesting to note that there were 425 students in Latin, 41 in Greek, and 225 in German, which language is coming into its own again after the war. The small registration in library service courses is not an index of the possibilities in this field as this group was only lately added to the curriculum. Enrollments of 407 for art and 78 for music indicate a possible field.

The Institute of Arts and Sciences has been under the direct care of Mr. George V. Denny, Associate Director of University This is the freest form of University Extension Extension. as it consists simply of short lecture courses and various forms of intellectual entertainment which are helpful to persons who cannot take advantage of class instruction or Home Study. Mr. Denny reports a most satisfactory year and the testimony of the members supports this statement. The total attendance for this, the sixteenth year of the Institute, was 101,089, which is among the largest totals of its history, an increase of 20 per cent over the preceding year. The total membership shows an increase of 350 over the preceding year. Certain administrative changes have been made which have added to the general usefulness of the program. All events calling for additional charge have been eliminated from the regular program so that members have had the privilege of attendance without additional expense at all the evening meetings of the week. Each evening of the week was assigned to a special subject and all concerts and plays were scheduled on Saturday evenings. Thus, Wednesday was devoted to lectures on religion, philosophy, and psychology. Tuesday and Thursday were assigned to lectures on cultural contributions of other nations. This is part of a continuing program to promote international understanding and good will. Monday and Friday were given over to general lectures on science, travel, current events, history, art, literature and drama.

In place of the afternoon meetings, which have been poorly attended, short morning courses of lectures have been substituted. Thus Dr. Richard Burton gave three series of seven lectures each, two on "Significant Current Books," and one on "Current Drama and Dramatists." This plan will be extended during the coming year to include, in addition to the Burton lectures, two short courses by Dr. Alfred Adler of Vienna on the general subject of "Individual Psychology"; a course of seven lectures on the "History of Literature" by Professor Harry M. Avres; a course on the "Spirit of the Modern World as Expressed in Drama" by Professor Hatcher Hughes; and a short course on "How to Enjoy Poetry" by Edward Davison. The development of these short courses is designed to draw Institute members and other adults into closer contact with University interests. Many Institute members are already registered in University Extension classes.

The Institute Magazine, published monthly from October through May, has replaced the Fortnightly Bulletin, the Annual Announcement and the Annual Report. The Magazine serves to stimulate attendance at meetings and by articles and book reviews, tends to increase and make effective the educational purpose of the Institute.

Important additions to the program were the Institute concert series of five concerts by artists of the first rank. The series included: The Flonzaley Quartet, Madame Louise Homer, Mr. Walter Gieseking, Mr. Lawrence Tibbett, and the Kedroff Quartet.

The lecture list shows many distinguished persons: Harry Emerson Fosdick, Stephen Leacock, James T. Shotwell,

Hugh Black, William C. Redfield, John Cowper Powys, David Seabury, Edith Wynne Matthison, and Charles Rann Kennedy.

Among distinguished foreign visitors, we find the names of Dr. Fridtjof Nansen, Count Felix von Luckner, the Grand Duke Alexander of Russia, Walther Kirchhoff, Yusuke Tsurumi, Princess Alexandra Kropotkin, S. K. Ratcliffe.

Various departments of instruction and numerous organizations coöperated with the Institute in offering 52 lectures and conferences. The policy of the administration looks to a program of fewer and more attractive events. As this means additional expense, the Administrative Board decided to increase the fees to \$15 for a single and \$25 for a double membership. A careful survey of the members indicated the approval of the policy of increasing the fees and making the program more attractive.

The Acting Director of Seth Low Junior College, Mr. E. J. Allen, has submitted to the Administrative Board the first annual report of which the following is a summary.

On the fifth of March, 1928, the Trustees of the University established the Seth Low Junior College. For many years, University Extension had conducted a two-year program of liberal arts at the Long Island College Hospital for young men and women who desired to enter the profession of medicine, and for several years also offered a course of studies at the Brooklyn Law School for students who intended to enter the profession of law. These courses, offered to those seeking to enter the profession of medicine or that of law, were used as a basis for the Seth Low Junior College with the intention of meeting the needs of students who desire to enter the various professions, by providing two or three years of collegiate preparation which the standards of admission to professional schools now demand.

The following Administrative Board was appointed: Director James C. Egbert, Dr. Frank L. Babbott, Jr., Professor John J. Coss, Mr. Jackson A. Dykman, Dean Herbert E. Hawkes, and Professor Adam LeRoy Jones. The Trustees on the recommendation of the Administrative Board ap-

pointed an Acting Director, officers of instruction, Committee on Instruction, and assistants to the Director and advisers to the students. They authorized the preparation of courses and arranged for the housing of the College on the fifth and sixth floors of the new building of the Brooklyn Law School. The space in this building was so adjusted as to provide a commodious library, necessary facilities for laboratories for zoölogy and psychology, lecture and machine rooms for statistics and accounting, a large lecture room, eleven classrooms, a staff room, administrative offices, a newspaper office, and men's recreation room as well as four small offices for the advisers to students.

The Committee on Instruction considered it advisable to continue the courses previously offered at the Long Island College Hospital and at the Brooklyn Law School and to add to these a number of courses similar to those given in Columbia College, with the intent that all students who entered the various professional schools of Columbia University might be able to obtain two years in full of college work. Each department of Columbia University appointed a member of the teaching staff as its representative in preparing a course of instruction for the students of Seth Low Junior College so that they might be guided by the various departments of the University in the same manner as the students in Columbia College. The Office of Admissions of the University used the same standards for Seth Low Junior College as were employed by other parts of the University with the result that immediately the standards of Seth Low were recognized as similar to those of the other schools of the University.

More than 700 students applied for admission to the College. Of that number, 306 were registered in the Winter Session and 326 in the Spring Session. These were divided between the first and second years. Beyond these, fifteen University Undergraduates who were taking their third year were registered. The total registration for the year was 388.

University Extension established courses in the late afternoon and evening in the rooms used by Seth Low Junior College at other hours. The registration in these courses for

the Winter Session was 199 students and for the Spring Session, 225. The courses offered by University Extension were very helpful in adding to the program of the students of the College.

The Administrative Board provided for the organization of the Seth Low Students' Association, the members of which were matriculated students in Seth Low Junior College. They also arranged for a Committee on Student Organizations which should be composed of the Acting Director as Chairman, one instructor, the Assistant to the Acting Director in charge of extracurricular activities, and the President of the Student Council. The Assistant to the Acting Director, Mr. Charles Mueller, a man of much experience in this field, was put in charge of extracurricular activities. Under his leadership, the students formed the Seth Low Students' Association, a Student Council, the two classes were organized, and arrangements were made with the Plymouth Institute for the use of their gymnasium facilities. A managing staff for basket ball was appointed and a suitable coach was employed. Many games were scheduled and played during the year and the students' interests were carefully considered. The Brooklyn Debating Association was organized with the Seth Low Junior College, Long Island University, and the College of the City of New York as members.

Many groups were transformed into active organizations such as the Barrister Society, the Psychology Club, the French Club, and the German Club. The outstanding activity of the students was the organization and publication of a weekly newspaper known as the *Seth Low Scop*. This for the students of Seth Low corresponds to the *Spectator* of Columbia College students.

The operation of the College for the first year has been most satisfactory although certain difficulties were met such as always beset a new institution. There is the supreme need for a building constructed properly for collegiate work. Notwithstanding the excellent provision made by the Brooklyn Law School for the comfort of Seth Low Junior College, the necessity of such a building has been felt in many ways. The policy of the Administrative Board has been to allow the

students of the Seth Low Junior College to take their courses in chemistry and physics at Morningside Heights on Tuesdays and Thursdays. This has certain difficulties although it has the advantage of bringing the students of Seth Low into contact with the interests at Morningside. We should, however, have laboratories and lecture rooms for chemistry and physics in Brooklyn. This can only be accomplished by the erection of a suitable building.

Certain weaknesses in the curriculum of the first year have been remedied in the program for the second year. Thus contemporary civilization and several liberal arts courses which have not been offered hitherto are now being presented to the students of the Seth Low Junior College; and the situation for the coming year is materially improved. Negotiations were satisfactorily completed with Plymouth Institute for the use of their gymnasium and it has been possible for us to announce a physical education program for next year, and a well-trained staff has been selected by the Department of Health and Physical Education of the University for this important work.

Recently the University Council voted professional option for the students of Seth Low Junior College. This is one of the most important steps in the improvement of the service which is given to the students in Brooklyn. By the addition of a few new courses it has been possible to extend the curriculum into a three-year program so that students desiring a professional option in business, dentistry, journalism, law, library service, and medicine may obtain three years of a liberal arts course in the classes in Seth Low Junior College in Brooklyn. Intimate association with the Long Island College Hospital Medical School and with the Brooklyn Law School has been maintained especially as it is the purpose of Seth Low Junior College to supply students of high grade to both of these institutions. Inasmuch as a three-year program is offered, this will enable the students of the College to enter a grade A medical school and obtain the degree of B.S. in Columbia University on the completion of their first year.

It can be readily understood that the needs of Seth Low Junior College are very numerous. In the first place, a number of scholarships and a loan fund are greatly needed, and we are hoping that the friends of the new institution will make this possible by generous gifts so that worthy students who are in difficulty because of lack of financial support can continue their academic endeavors. It is necessary for us also to look forward to the time when students at Seth Low should receive some sort of medical advice such as that supplied for the students of Columbia University at Morningside Heights.

A general feeling exists among the officers and staff of Seth Low Junior College that the program should be increased to four years. This would be a relief to Columbia College and would furnish to the students of Brooklyn the same opportunities which are afforded to those who attend Columbia College at Morningside Heights. There are many institutions in Brooklyn for which Seth Low Junior College, a liberal arts college, could do appropriate and acceptable work.

My attention has been brought by Professor Frank A. Patterson to a most interesting quotation found in Milton's tract on "Considerations touching the likliest Means to remove Hirelings out of the Church." This quotation is of interest to us because it indicates that when Milton was arguing for the foundation of higher schools and colleges, he also had in mind a development similar to our University Extension. It is as follows:

Those publick foundations may be so instituted, as the youth therin may be at once brought up to a competence of learning and to an honest trade; and the hours of teaching so orderd, as thir studie may be no hindrance to thir labor or other calling.

In bringing this report to a close, I wish to refer in no uncertain terms to the devotion to the cause of adult education of all the members of our staff of instructors and of those who carry the burden of administration. This department is responsible for the educational interests of many thousands of persons who are undergoing great sacrifices of money and time for intellectual advancement. Hence the cause is

sanctified and the service to be effective must be entered upon with a spirit of devotion. This is the atmosphere, Mr. President, which pervades the offices and classrooms of University Extension.

Respectfully submitted,

James C. Egbert,

Director

June 30, 1929

SCHOOL OF BUSINESS

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As Director of the School of Business, I have the honor to present herewith the report for the academic year ending June 30, 1929.

We are now entering as a School upon the fourteenth year. These fourteen years form a very short life compared with the 122 years of the School of Medicine, 71 years of the School of Law and 66 years of the School of Engineering. With the exception of the School of Dentistry and the School of Library Service, the School of Business is the youngest in the University family. In this short period of fourteen years, however, the School has taken its place alongside of the others and has become an important part of the University structure. This period also approximates the twenty or twenty-five years during which university schools of business have assumed an accepted place in higher education.

According to the first Announcement of the School of Business, 1916–1917, the staff of the School included one professor of full grade, three assistant professors, three instructors, and four lecturers. As recorded in the Announcement of 1929–1930, the officers of instruction are classified as twelve professors of full grade, two associate professors, eight assistant professors, five instructors, three lecturers, and two assistants. In 1916–1917, the students numbered 61 of which number 53 were men and 8 were women. In 1928–1929, there were 444 students of which number 342 were men and 102 were women. At the Commencement in 1917, four men received the degree of Bachelor of Science and two men the degree of Master of Science. In 1929, 62 received the degree of Bachelor of Science and 40 the degree of Master of Science.

These changes in the number of the staff, of students and of graduates indicate a normal growth of such a character that the additions to the instructing force corresponded appropriately to the increase in the number of students.

Although the report of the Registrar presents statistics in great detail, I desire to call attention to certain significant numbers. Our students this year numbered 444 as compared with 354 last year. Of these, 202 were registered for the Bachelor of Science degree as compared with 178 last year; 134 for the Master of Science as compared with 117 last year; and, finally, 25 are candidates for the degree of Doctor of Philosophy as against 21 last year. The number of students is larger and the increase in graduate students is significant. We also care for 21 students who are candidates for the secretarial certificate and 62 unclassified students. The national character of the School is shown by the fact that 237 of the 444 students come from outside of New York State.

Of the undergraduate students, candidates for the Bachelor of Science degree, one each came from forty-eight different institutions, two each from thirteen institutions, three each from École Superieure de Commerce et d'Industrie (Paris), University of Pennsylvania and of Wisconsin, four from Packer Collegiate Institute, ten from Barnard College, twenty-one from Columbia University Extension, seventy from Columbia College. This shows the wide distribution of these students although as we would expect the largest numbers came from Columbia University.

Of the graduate students, candidates for the Master of Science degree, one each came from fifty-nine institutions, two each from ten institutions, three from the University of North Carolina and University of Pittsburgh; four from Yale; five from Columbia University Extension, New York University and Ohio State; of candidates for the degree of Doctor of Philosophy, one each came from Barnard College, China National University, Columbia University Extension, Fordham, Franklin Marshall, Handelschool (Holland), Harvard, Ohio Wesleyan, Princeton, Robert College (Constantinople), St. Petersburg University, University of Stockholm, University

sities of Illinois, Pittsburgh, West Virginia, and Vienna; two from New York University, Ohio State, and University of Michigan; and three from Columbia College. Thus the distribution of the graduates is similar to that of the undergraduates. The national and international character of the constituency of the School is very evident.

In the February number of the current year of the *New Student* the closing words of an article entitled "Business Goes to School" imply that only rich men can take advantage of the opportunities offered in schools of business administration, "If business becomes a profession, then there will be nothing left for the common man except day labor." This is based upon the expense of a business education as exemplified in particular in the School of Business Administration of Harvard University. This statement led me to investigate the situation in our own School and learn how many of our students while attending the School were able to support themselves, and did not rely upon others.

Of our 444 students, 215 (187 men and 28 women) supported themselves either entirely (134—112 men and 22 women) or in part (81-75 men and 6 women). Of these, 41 (39 men and 2 women) gave their summers to business so as to meet their expenses, so that 174 had remunerative employment throughout the year. Some students, comparatively few, (10-7 men and 3 women) have accumulated funds upon which they live while attending the School. Others, not dependent on earnings, engaging in business during the school year, number 60 (53 men and 7 women). These figures prove unmistakably that about 50% of the students are not sent to the School by wealthy parents, but find it necessary to engage in remunerative employment during school attendance. It is interesting to point out that one student, a young lady who is completing her course for the Bachelor of Science degree, is a buyer in a store in Detroit so that she makes the trip between Detroit and New York once in the week. I should add, also, that the School of Business looks with favor upon the business activity of its students, particularly during the summer season. In fact, certain members of our staff would require practical business experience of all students who are candidates for a degree. In this connection it is important to note the apparent preference of students as to their future careers. Of 372 students whose preference was attainable, the largest number—68—select accounting; merchandising and sales next claim 56; security analysis and brokerage are the preferences of 37; and banking follows with 34 students. The academic influence is seen in the choice of statistical research by 38 and of economic research by 5. Only 28 have specified teaching, and a secretarial career is selected by 29. Others in varying numbers name advertising, 19; executives, 18; insurance, 8; transportation, 5; manufacturing, 3.

The activities of the incumbent of a professorial chair have broadened during the past fifty years to a degree not generally understood by the layman. In early days, a collegiate professor would appear before his class and then retire to his sanctum for suitable study or for the preparation of material for publication. In fact, the activities of a college professor were generally confined to class instruction and editorial work. The world outside of the academic institution was foreign to him and in turn the business man took little interest in the accomplishments of his fellow in academic life. The professor of the present day performs the duty of a teacher, but beyond this engages in scientific investigation and study which are of value to the non-academic world. As a result the layman now regards his professorial colleague with respect and not as an individual separate from the world of active and practical affairs. This change is due to the broadening of the academic confines by the addition of schools of science and schools of business which come into close contact with the world outside the academic borders. A mere enumeration of the studies and scholarly interests of the members of the staff of our School of Business will furnish information emphasizing the contrast to which I have referred. In speaking thus we must insist that these scholarly interests and activities are appropriate and legitimate for officers of instruction in a school of business. We must go still further

and assert that they are essential in the educational conduct and development of a school. Of course, the relative importance of these scholarly interests must be carefully determined and the real educational object of the school must not be lost sight of. I find great satisfaction in enumerating the evidences of scholarly activity of the various members of our staff.

Professor R. C. McCrea is the general editor of the "American Business Series" published by Henry Holt and Company. In this series, Professor Willis, in company with Professor Beckhart has brought out a book entitled Foreign Banking Systems. Beyond this, Professor Willis has published a series of twelve articles on American banking in the Banker, London, England. He has written the articles on business, finance and banking in the International Year Book and the articles on foreign banking and currency in the forthcoming issue of the Encyclopædia Americana, also articles on central banking and branch banking in the Encyclopædia of Social Sciences and a series of eight articles on important and distinguished figures in banking and finance for the American Encylopædia of Biography. Professor Willis has also delivered special lectures at Princeton University and Bowdoin College.

Professor Robert H. Montgomery published *Income Tax* Procedure 1929, supplement to the 1927 edition, and Federal Tax Practice.

Professor J. Russell Smith has published a unique book entitled *Tree Crops*, A Permanent Agriculture. This book is distinguished for its originality and is regarded as a real contribution. We may mention also the booklet entitled "Geography and Our Need of It" published by the American Library Association, also the articles "Is This a Permanent Country," Survey Graphic, October, 1928, and "The Use of Type in Teaching Geography" appearing in thirty state journals for teachers. Professor Smith has been awarded the Harmon Prize for "the magazine article of the year of most signal benefit in stimulating constructive opinion in social or industrial fields."

Professor R. B. Kester has united with Mr. Koopman in a thorough revision of Fundamentals of Accounting, Volume I.

Professor O. S. Morgan, for the Amtorg for Russian Journals, has written an article on "Large Scale Farming in the United States and Russia"; for the Chinese Student Bulletin, an article on "Introducing Modern Agriculture in Present Day China" and the chapter on "The Agricultural Situation in the Near East" in *The Near East and American Philanthropy* by Ross, Fry and Sibley published by the Columbia University Press.

Professor Paul H. Nystrom in his studies on marketing has published a book entitled *The Economics of Fashion*. The viewpoint is that of a business student attempting to understand what fashion is and how to make business adapt itself to the current movements of fashion.

Professor James C. Bonbright has devoted himself entirely to his research in judicial valuation. This has resulted in certain special articles: "Railroad Valuation with Special Reference to the O'Fallon Decision," American Economic Review, March 1928; "The Economic Merits of Original Costs and Reproduction Costs," Harvard Law Review, March 1928; "The Reorganization of Corporations in Germany," Yale Law Journal, April 1928; "Theory of Anglo-American Dividend Law: the English Cases," Columbia Law Review, December 1928; and with Milton M. Bergerman "Two Rual Theories of the Priority Rights of Security Holders in a Corporate Reorganization," Columbia Law Review, February 1928.

Professor Frederick C. Mills has continued his study of price structure under the auspices of the National Bureau of Economic Research. He prepared for the Hoover Committee's report on *Recent Economic Changes* the chapters on "Price Movements and Related Industrial Changes."

Professor Ralph Blanchard edited the second edition of two important books on insurance: *Marine Insurance* by Warner and *Life Insurance* by Maclean.

Professor B. H. Beckhart is continuing his studies and research on the money market. He has contributed an article on "The Banking Systems in the Self-governing Dominions of Great Britain" in the *Encyclopædia of the Social Sciences*. He was associated with Professor Willis in the editing of *Foreign Banking Systems*.

Professor Hastings Lyon has written an article on "Some Tendencies in Security Insurance" in the *Corporate Practice Review*, January, 1929. He has also prepared with Herman Block "Life of Edward Coke," *Oracle of the Common Law*.

Professor D. H. Davenport has collaborated in the preparation of the final report of the California Tax Commission and has engaged in research for the Stable Money Association on the relationship that exists between fluctuations in the volume of trade, credit and prices.

Professor Paul F. Brissenden has made an elaborate study of labor turnover in the Federal service for the U. S. Personnel Classification Board. He is engaged in research on the use of injunctions in labor disputes for the Columbia University Council for Research in the Social Sciences. He has served as member of the Board of Arbitration for the settlement of a labor controversy in the silk industry of Paterson, New Jersey.

In the July number of the Geographical Review (1928), Professor Orchard discussed the problems of increase in population in Japan giving elaborate statistical material. See New York Times, September 16, 1928.

Professor Ralph Alexander is engaged on an investigation for the *New York Journal of Commerce* of prices of certain articles in chain stores as compared with the prices of similar articles in stores owned independently. Professor George Filipetti is making a very careful study of the companies engaged in making small loans to individual borrowers. He has prepared an interesting article on "The Future of the Small Loan Business."

Professor H. K. Nixon is engaged on research determining a new method for testing the attention value of advertisements and the development of a series of slide-film discussions of principles of selling suited to the needs of industrial organizations.

Dr. L. A. Wolfanger has published an article on "Major World Soil Groups and Some of Their Geographic Implications" and "The Influence of Climate as a Factor in Soil Evolution as Illustrated by the Loessial Soils of the United States." These are the result of Dr. Wolfanger's studies in soil geography.

Dr. Carl S. Shoup has coöperated with Professor Haig in his book on *French Financial Policy since 1914* and a discussion of the French Turnover Tax in Professor Haig's second volume on the *French Tax System*.

Such scholarly work as I have just recounted is of great importance as scientific investigation for public benefit and advantage; nevertheless it affects in a most salutary way the usefulness of instructors who come before their classes inspired by the zest of their original and productive study. Such men lead their students along similar pathways of original investigation. Most naturally there follows the publication of books and articles setting forth the results of these studies. With all this the real educational object of the School is not forgotten or neglected. We believe the School exists for the students and uniformly our instructors unselfishly maintain this theory and practice this doctrine. The amount of detailed labor which devotion to the interests of students demands is rarely appreciated by those unfamiliar with the task. The duties of an instructor are not confined to class exercises but include personal advice and supervision, guidance and criticism of studies which often assume the form of elaborate essays and help of a varied nature which the diverse interests of the students require.

Again I should record the ever increasing demand presented by the nation and by individual states for the service which members of our staff can render. These men by the scholarly work which I have recounted above have become distinguished as experts in various fields and therefore are in demand. This call for public service is insistent and is difficult to deny. We recognize that it is our duty to accede to such requests if the educational interests of the School are protected. During the past year, Professor Robert Murray Haig has been granted leave of absence at the request of the governor of California. Professor Haig was called as an expert on taxation to aid this state at a critical time when modification of the laws on taxation was under consideration by the legislature. Recently Governor Roosevelt of New York appointed Professor James C. Bonbright as a member of the Commission on Public

Utilities. Public service is therefore here indicated as an important part of the duties of the members of the staff of the School.

During the past academic year an endeavor has been made to bring the students into contact with men in active business, especially those who have had extensive experience and have attained important positions. With this purpose in mind the Administrative Board established a course which they designated "Business Policy." This course consisted of a series of lectures by prominent business men on various aspects of business policy and attendance was required of all undergraduate students to whom due recognition was given. An hour on the second Wednesday in each month of the academic year was set aside so that all who desired could attend.

As a School we are greatly indebted to the following gentlemen who came at our request and spoke in an informal manner before our students. In October, Mr. R. W. Barrett, vice president of the Lehigh Valley Railroad, was the speaker; in November, Mr. Chellis A. Austin, president of the Seaboard National Bank; in December, Mr. C. S. Ching, director of industrial relations, United States Rubber Company; in January, Mr. Phillip G. Gossler, president of the Columbia Gas and Electric Company: in February, Mr. Dutro C. Cale. vice president of the Certainteed Products Corporation: again in February, Mr. Henry S. Dennison, president of the Dennison Manufacturing Company; in March, Mr. W. A. Courtney of the American Bank Note Company; in April, Mr. Billings Wilson, deputy manager of the Port of New York Authority; and finally in May, Mr. Samuel W. Reyburn, president of Lord and Taylor. The plan was so successful that it has been continued for the coming year.

Among others who have spoken before the students, I would mention, Mr. Lloyd Sweeting, research statistician for General Motors Corporation; Mr. Frederick Coqueron, a graduate of the School of Business, 1922, now statistician for Tide Water Oil Company; Mr. K. W. Jaffe, of Brookmire Economic Service, Inc., and Mr. A. D. Folger, graduate of the School of Business, 1923, now statistician for E. R. Squibb and Sons.

The activity of the Staff Committee on Employment of students is deserving of special mention, particularly as the increased registration has added to its task. The School does not aim to prepare students directly for business, but rather to give them a fundamental training which will equip them for business in general. Hence, we do not endeavor to obtain positions for all our students, but are interested in their appropriate placement, and to this end study their qualifications for positions which may be open to them. Beyond this we are desirous of supplying business men with students who have received our training and whom we can recommend. The number of students registered with the Committee numbered 143, i.e. one-third of the student body, as compared with 95, or one-fourth, last year. Sixty-two different business firms and twenty-three educational institutions requested the aid of the Committee in the selection of students for various positions. Of the 143 students registered, the Committee could recommend, for various reasons, only The proportion of students placed in positions, to the number registered, was 50% for 1928-1929, as compared with 39% for 1927-1928. An examination of the occupational classification of the requisitions made by employers shows that a smaller number came from universities and colleges for teachers, although this is as yet the largest group. On the other hand, the number of positions involving statistical and research work has increased considerably, 18 as compared with 6 for 1927-1928. The Committee calls attention to the fact that whereas the largest number of requisitions were for teachers and for statistical and research work, the largest group of preferences expressed by students were for positions involving securities and security analysis and banking and accounting. It is evident that we should encourage our students to enter the field of teaching, as the demand largely exceeds the supply. A large and increasing number of business houses, (at present 98), coöperate with the Committee in the placement of students. I am pleased to record again the useful work of the Students' Committee on Employment which is helpful in making student contacts and supplying information as to occupational preferences and registration of students. The members of the Students' Committee this year were Robert Noth, chairman, Wallace E. Carr, vice chairman, and Elise Phillips and Eduard Alicohen. The Faculty Committee has enjoyed as hitherto the skilled assistance of the University Appointments Office and of Miss Clara E. Velting, secretary in the office of the School of Business.

If space permitted, I should like to refer to various interesting details associated with the work of the School in all of its different subjects of study. I shall mention, however, only those matters which are outstanding either in achievement or promise for the current year. Those responsible for the subject of accounting desire me to mention the part which the School will take in the forthcoming International Congress on Accounting, the sessions of which will be held from September 9 to 14 at the Hotel Commodore. Frequent visits will be made to the School of Business by the delegates. The University has hospitably opened the dormitories to the delegates from foreign countries, many of whom would have been unable to attend if this hospitality had not been furnished. The Montgomery Library will form the basis of an exhibit of old accounting books and records prepared by the Librarian, Mr. Howson. The accounting and auditing laboratories will be open for inspection by those attending the Congress. The auditing library, which is unique in a School of Business, owes much to the generosity of Professor Montgomery and the painstaking devotion of Professor Byrnes. This laboratory is equipped with books of firms which have retired from business, and records and reports obtained through the courtesy of the Federal District Attorney. Many accountants, bankers and brokers have contributed material for this laboratory, in which individual instruction is given through the use of these books which supply adequate practice material of great value, such as is needed by students of accounting.

An increasing number of graduate students are coming to the School and the University, who are primarily interested in various aspects of agricultural economics. Several Federal acts, stimulating scientific research in economics, have become operative in the agricultural field. Such is the Parnell Act which, carrying an appropriation for each State Agricultural Experiment Station, is designed to promote research in the field of agricultural and home economics and rural sociology. Qualified workers in this field are very rare and should be trained in our universities. The Department of Agriculture is preparing an Announcement, indicating the various appropriate courses offered by Columbia. Many aspects of this field are not adequately covered at present, e.g. methods of research in agricultural economics, and the history of agriculture of the last century. Truly this is a most important field to be developed by the School of Business.

Through the active interest of yourself and the Trustees of the University and by the gifts of its patrons and benefactors, Mr. A. Barton Hepburn and Mr. Emerson McMillin, the School of Business, though young in years, is well equipped in its building and in the distinction of its staff for its service in this business community. The University and the School understand the obligation which they owe to the world of business about them. There is a reciprocal obligation, however, which is due to the School from the business men of the city, who should supply the means whereby the School may make progress in the scientific study of business and the training of those who are to be the business men of the future in this great metropolis. For these business men of the city we are enumerating the needs of our School. We desire to establish a Professorship of Real Estate and are looking for funds for this purpose. We naturally turn to the prominent real estate interests of the city. Our Professor of Advertising is appealing for funds with which to conduct valuable research in his chosen field. Such research will be of value to the advertising interests of New York and the appeal should meet with a hearty response from the great advertising firms of the city.

Our library can expect only a small amount from the University appropriation for library purposes and the situation is deplorable, as it is impossible to obtain requisite books to maintain and build up a useful library for the School. We

look to the general business man to appreciate our need and generously grant us aid in building a business library for our School and for the business community. The rooms assigned to the library of the School are now inadequate both as to space for readers and stock rooms. The most satisfactory solution of our problem would be the erection of a building for the Banking Department, which would house the library and furnish additional rooms for banking equipment and seminars, so as to strengthen the courses in banking. For the past ten years the University has furnished educational supervision of the New York Chapter of the American Institute of Banking. This Chapter at present occupies a building constructed for a different purpose. If a building devoted to banking were placed on the campus, such a structure might well serve as a home for the New York Chapter of the Institute of Banking and assume a form especially adapted to this purpose. There is a splendid opportunity of public service open to the great banks of this city.

I mention last of all, although it is by no means our least important need, the funds required to enable the School to publish a business journal. Many important articles are prepared by the members of the staff which are sent to journals of other schools, because of the lack of a vehicle of publication afforded by our own School.

I have stated elsewhere the obligation which is felt by the staff of the School toward the business world, especially that portion immediately at its doors. Various plans have been considered, looking to increasing the usefulness of the School in this respect. It is our purpose from time to time to conduct institutes assigned to important business topics. These institutes will be held in the School for periods of one to three days and will be open to all interested business men. The first institute of this character was held on October 24, 1928. It assumed the form of a National Conference on Major Industries, held under the auspices of Columbia University and the Institute of American Meat Packers, with the coöperation of the Merchants Association and the Chamber of Commerce of the State of New York. The speakers at the

day session were Mr. Clarence E. Mitchell, president of the National City Bank; Mr. Walter S. Gifford, president of the American Telephone and Telegraph Company: Mr. Harold H. Swift, vice president of Swift and Company; Mr. C. F. Kettering, president of the General Motors Research Corporation; Mr. Myron C. Taylor, chairman of the finance committee, United States Steel Corporation; and Mr. Frank B. Noves, president of the Associated Press and the Washington Star. The evening session took the form of a dinner in honor of seven pioneers of American industry, Mr. Harvey S. Firestone, president of the Firestone Tire and Rubber Company; Julius Rosenwald, president of Sears Roebuck and Company; Thomas A. Edison, inventor of the electric light and numerous other benefits to mankind; Sir Thomas Lipton. founder and president of Thomas J. Lipton, Inc.; Charles M. Schwab, president of the Bethlehem Steel Corporation; Henry Ford, president of the Ford Motor Company; Walter Chrysler, president of the Chrysler Motor Company; George Eastman, president of the Eastman Kodak Company, and Orville Wright, inventor and builder of airplanes. Mr. Oscar G. Mayer, president of the Institute of American Meat Packers, presided, and Lord Melchett, chairman of the Imperial Chemical Industries, Ltd., was the principal speaker. The guests of honor were presented by President Nicholas Murray Butler of Columbia University.

The staff of the School of Business has found that there is much to be done in the study of distribution. They have appointed a special committee on this subject, of which Professor R. C. McCrea is chairman. It is their intention to hold an institute and develop a research program in the field of distribution. The committee has suggested that the Institute of Distribution should concern itself with all aspects of the general problem of distribution and should include social and economic aspects of this problem as well as the physical and financial phases which are of immediate business concern. Various changes are taking place which affect distribution methods and problems and will have a profound influence upon the general economic development of the country.

A comprehensive survey of the field and an evaluation, business and social, are pressing needs. Among the problems calling for consideration as the tendencies in the field of distribution, the nature of the changes taking place in consumer demand, the relative efficiency of various distributive methods, the foreign trade situation, the economic costs of distribution, foreign trade and the debt situation, our tariff policy and foreign trade, the economic and social aspects of advertising, installment buying and its effect on credit—all of these are related to distribution, which is replete with questions vital in the conduct of business. This study must be set forth in a program of several years and will demand and justify a large expenditure of money. From this brief enumeration it becomes evident that the School of Business is proposing a plan of investigation which will be of extraordinary public service.

In closing, may I state again the theory and purpose which determined the organization and which prevail in the conduct of the School. Accepting only those who have had a cultural training, it affords an education for its students in the fundamentals of business science and recognizes that its obligation does not rest there, but involves a service to the business world through its investigations and research, a spirit which reacts in the greater enrichment of the education offered its students.

Respectfully submitted,

JAMES C. EGBERT,

Director

June 30, 1929

SCHOOL OF DENTAL AND ORAL SURGERY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report for the School of Dental and Oral Surgery for the academic year ending June 30, 1929:

There were 173 undergraduate students registered in the School; in the courses for graduates in dentistry there were 43 students. Of undergraduates there were 57 freshmen, 59 sophomores, 31 juniors, and 26 seniors. In the courses in Oral Hygiene conducted by the School, 71 young women were registered.

New appointments and promotions are as follows:

NEW APPOINTMENTS

William H. Crawford Associate Professor of Dentistry Ewing C. McBeath Associate Professor of Dentistry

Houghton H. Holliday . . . Assistant Professor of Dentistry and

Superintendent of Clinics

James A. Allen Instructor of Dentistry Henry U. Barber, Jr. Instructor of Dentistry Henry A. Bartels Instructor of Dentistry C. Sterling Conover Instructor of Dentistry

PROMOTIONS

Adolph Berger William Carr Professor of Oral Surgery

William D. Tracy Professor of Dentistry

Douglas B. Parker Associate Professor of Dentistry Lester R. Cahn Assistant Professor of Dentistry

The year was marked by the removal late in September to the new quarters in the east wing of the Medical Center. The larger and infinitely more convenient facilities so provided have greatly simplified teaching problems. The fine laboratories, amphitheaters, and biological collections are of obvious benefit. During the year the dental library was arranged in conjunction with that of the Medical School. This is both an economy in operation and a stimulus to wider reading on the part of the student.

The closer affiliation with the Medical School and the Hospital is proving of the expected educational value to dentistry. We have here an opportunity ultimately to make dentistry a profession in the truest sense. If our plans work out, the graduate in dentistry will in due time have had a background of cultural and scientific training favorably comparable to that of any other professional man. It is the hope of the School, stated in general terms, "to maintain applied science in close association with pure science." The isolated professional school may develop the art of dentistry, but hardly its science. A great medical center is an ideal background for the development of the well-rounded dentist.

Largely due to the new environment, there is already noticeable an improved spirit among both students and Faculty toward their problems.

Improved physical facilities and the attractive new environment of the School have helped to draw an increasingly valuable list of patients from the standpoint of teaching. 15,229 patients were registered. About 4,000 patients were turned away for lack of facilities. Statistics for the last three months show that over two-thirds of the total number of patients cared for were either students, personnel of the University, or patients from the Vanderbilt Clinic and the Presbyterian Hospital.

There has been an especially noteworthy growth in the teaching clinic in orthodontia, which has more than doubled in size. This affords excellent material for the projected research work in children's dentistry, now definitely planned for next year.

Realizing that the dental student, by reason of the peculiarly exacting technical requirements of the practice of dental therapeusis and surgery, must have a natural aptitude for delicate manual execution, the Faculty agreed on an admission

examination for every student to test him for such ability. To date we have had to reject about one-third of the applicants for deficiency in such fundamental requirements. It is believed that ultimately this examination requirement will materially raise the average standard of work in the School.

Recent changes in the curriculum promise further progress toward the ideal of a scientifically minded dentist. The first two years of the professional course are now very similar to the same two years in medicine. Beginning next fall the senior class will have a four-credit course in the practice of medicine with especial emphasis on oral symptoms of disease. There will also be a course in the diagnosis of general conditions as revealed by mouth symptoms. Both courses will be conducted by teachers from the Medical School.

The new four-quarter plan, whereby students may complete the required course in three years of forty-four school weeks each, instead of the usual thirty-one weeks, has been instituted. The first class to enter under this plan began summer work with an enrollment of twenty-four. The work done is of a very high grade, and the experiment seems justified.

Experiments with various types of courses for graduates seem to show little local demand for intensive short courses. The attraction at the School seems to be the great teaching clinic, with its exceptional variety of case-material and its highly equipped staff of teachers. Many types of practitioners from various countries have shown a desire to do somewhat extended work toward the perfection of one or more specialties in dentistry. Some of these students look forward to a graduate degree; others do not. To meet the needs of the latter group it has recently been arranged to grant a "Certificate of Proficiency" in the field studied for 32 points of satisfactory work. One such certificate has already been granted.

It has long been recognized that education on varying levels may ultimately be necessary for a variety of tasks in several professions. One such step in dentistry is the training of the oral hygienist, who can be of great usefulness in prophylactic and preventive work. The present course for these

young women is one academic year of 30 credits. That they fulfill a function is shown by the demand for graduates and by the large number of applicants, which is far beyond the capacity of the School.

Several noteworthy gifts have been made to the School, among them an encouraging anonymous endowment fund of \$50,000. Gifts were as follows:

Contributions toward the fund for the School of Dental and Oral										
Surgery:										
Anonymous donor										
Dr. Henry Gillett, to be applied toward his proposed gift of										
\$100,000, made in accordance with the conditions named in										
his letter to the President dated January 26, 1928 30,000.00										
Anonymous donor										
Mr. J. G. White										
Samuel A. Keyser										
Charles Neave										
Dr. S. E. Davenport 500.00										
W. R. K. Taylor										
Charles A. Stone										
Edmund A. Prentis, Jr., of the Class of '06, received through										
the Alumni Fund										
G. Curran										
Mr. Elsberg										
Mrs. Jane A. Hofer										
From the New York Tuberculosis and Health Association,										
to be applied toward the salary of an instructor in the School										
of Dental and Oral Surgery, five contributions totaling 754.08										

Research on a high level has been consistently pursued in various fields. A new theory as to the cause of dental caries has been adduced by Professor Charles Bödecker. It is the "crystallization of researches extending over 26 years—(it) offers a practical explanation of the reason for the decay of the teeth and will, it is hoped, in the near future make the control of this scourge possible." ("A New Theory of the Cause of Dental Caries," *Dental Cosmos*, June, 1929.) Naturally so important a contribution is receiving serious attention in many quarters. Dr. Bödecker is continuing this study and is also carrying on other researches. Another important contribution of Dr. Bödecker on the histological phase of

dental caries is a report on "A Rational Means of Controlling the Evils of Incipient Dental Caries." (Dental Cosmos, March, 1929.)

Dr. Bödecker's laboratory assistant in oral histology and embryology, Dr. Edmund Applebaum, has in preparation a report on "Changes in Dentine under Various Filling Materials."

Researches are being made into possible basic dietetic reasons for dental caries. Dr. Harold J. Leonard is continuing laboratory investigations in this field. Dr. Leuman T. Waugh was commissioned in the United States Public Health Service for the purpose of investigating the mouth and teeth of the Alaskan Eskimo, especially in relation to various diets.

Other studies completed or in progress are as follows:

Dr. Henry A. Bartels: "Further observations upon painful sockets after extraction," and "Studies upon hypertrophic tissues," the latter being carried forward in conjunction with Dr. Schroff.

Dr. William H. Crawford: "Physical properties of dental materials." Dr. Leroy L. Hartman: "Development of a definite technic for cavity preparations," and "Work on the use of stains in the detection of pits and fissures of the teeth."

Dr. I. Hirschfeld: "Special research work in Vincent's infection."

Dr. Harold J. Leonard: "Study in the calcium content of the saliva." Dr. Joseph Schroff: "Further studies of the upper incisor region with regard to the question of cysts," "Studies regarding the hypertrophy of gums," in conjunction with Dr. Bartels, and "Studies regarding salivary stones."

The fundamental need of the School is for a substantial endowment to further especially the work in research and teaching. Additional space is already required to meet growing demands in the latter field. There is a universal need for further scientifically conducted research in the causes and prevention of dental caries (the most widespread in its ravages of all human ailments) and into the diseases of the mouth as related to systemic conditions and disease. Such research, like other research of a genuinely scientific nature, is logically laid on the universities. Simultaneously with the pursuit of this should be carried on the training of

dental research workers, of whom there are all too few. One especially important development should be the training of teachers in various fields of dentistry. There is an increasingly serious shortage in this field.

BOOKS PUBLISHED

Berger, Adolph: "Principles and Technique of the Removal of Teeth," Dental Items of Interest Publishing Co., Brooklyn, N. Y.

Cahn, Lester R.: "The Basic Principles of General and Oral Pathology," a textbook for the dentist, dental hygienist, and medical nurse. Dental Items of Interest Publishing Co., May, 1929.

Diamond, Moses: "Dental Anatomy," a textbook, 1929, Macmillan Co. Schroff, Joseph: "Fundamentals of Pathology for the Oral Hygienist," July, 1929, William Broder Press.

PAPERS PUBLISHED

Bödecker, Charles F.: "Practical Dental Histology," Dental Cosmos, Vol. 70, September, 1928, pp. 893-906.

"Die Bakterien im Schmelzgewebe," Vierteljahrschr f. Zahnheilkunde, No. 2, 1928, pp. 242-53.

"Patients' Responsibility in Maintaining a Clean Mouth," Dental

Digest, Vol. 34, September, 1928, pp. 615-22.

"Concerning Organs Affecting the Eruption of the Human Teeth," International Journal of Orthodontia, Vol. 14, August, 1928, pp. 657-66. "Enamel Lamellae," Journal of the American Dental Association, Vol. 15, October, 1928, pp. 1885-93.

"A Rational Means of Controlling the Evils of Incipient Dental Caries,"

Dental Cosmos, Vol. 71, March, 1929, pp. 286-95.

"The Bacterial Destruction of Dental Enamel," Journal of Dental Research, Vol. 9.

"Studies of the Validity of Advertised Claims for Dental Industrial Products, No. 2, Lymeogene," Journal of Dental Research, Vol. 9, April, 1929, pp. 171-77.

"A New Theory of the Cause of Dental Caries," Dental Cosmos, Vol. 71,

June, 1929.

Cahn, Lester R.: "A Critique on Ionization," Dental Cosmos, December,

Chase, Oscar J.: "How to Make Jacket Crowns," in conjunction with Dr. Squire, Dental Digest.

Diamond, Moses: "Bridgework, a Consideration of its Principles and Uses," Journal of Dental Research, Vol. VIII, December, 1928.

"A Revision of Terminology for the Study of Detailed Descriptions of Crown Forms." Dental Items of Interest, Vol. L, December, 1928.

- Hartman, Leroy L.: "Use of Gold Foil in the Filling of Cavities in Anterior Teeth," Journal of the American Dental Association, June, 1929, Vol. 16, No. 6.
- Hirschfeld, I.: "Proliferating Hypertrophic Gingivitis; Report of Two Cases Accompanied by Severe Anemia," Journal of the American Dental Association, December, 1928.
- Leonard, Harold J.: "Causes and Treatment of Periodontoclasia," Journal of the American Dental Association, Vol. 16, 1929, pp. 629-35.

"Early Symptoms of Periodontoclasia," Dental Items of Interest, Vol. 51, 1929, pp. 260-67.

"Columbia School has a Tooth-Care Plan of Moderate Cost," New York Times, Sunday, March 24, 1929.

"The Dental Clinic of the Columbia University School of Dental and Oral Surgery," *Dental Digest*, Vol. 33, 1929, pp. 377-80.

Owre, Alfred: "Hygiene as Related to Preventive Dentistry," Dental Outlook, May, 1929.

"Report of Committee on Dental Education," (With Drs. W. A. Jessup, Hugh Cabot, and L. M. S. Miner) for the Association of American Universities, Thirtieth Annual Conference, St. Louis, November, 1928.

Schroff, Joseph: "Unusual Cysts of the Maxilla," Dental Items of Interest, February, 1929.

"Painful Sockets after Extractions, a Preliminary Report on the Investigation of their Etiology, Prevention, and Treatment," with Henry A. Bartels, *Journal of Dental Research*.

UNPUBLISHED ADDRESSES, AND CLINICS

Bartels, Henry A.: Clinic: "Methods of Obtaining Dental Bacterial Cultures," First District Dental Society, New York.

Berger, Adolph: Address: "Significance of Bone Regeneration in Areas Caused by Infection in Pulpless Teeth," Pathodontia Section, First District Dental Society, New York, November 19, 1928.

Clinic and Address: "Various Phases of Oral Surgery," Scranton District Dental Society, Scranton, Pennsylvania, January 28, 1929.

Discussion of Dr. George B. Winter's paper on "Impacted Lower Third Molars," Second District Dental Society, Brooklyn, New York, February 11, 1929.

Address: "Diseases of the Maxillary Sinus and Other Accessory Cavities of the Nose," Newark Dental Association, February 7, 1929.

Address and Clinic: "Fractures of the Mandible, with Special Reference to Fractures of the Neck of the Condyle," New York State Dental Society, Rochester, New York, May 17, 1929.

Crawford, William H.: Address: "The Physical Properties of Dental Materials," Tennessee State Dental Association, Memphis, Tennessee, June, 1929.

Diamond, Moses: Address: "Crown and Bridge Work," Milwaukee Dental Forum, January, 1929.

Address: "Crown and Bridge Work," Kings County Dental Society, April, 1929.

Gillett, Henry W., in conjunction with Dr. Albert J. Irving: "Gold Inlays by the Indirect System," a series of monthly articles, *Dental Items of Interest*, July, 1928 through June, 1929.

Hartman, Leroy L.: Clinic: "Cavity Preparation and Manipulation of Gold Foil," County Dental Society, Scranton, Pennsylvania, October, 1928.

Address: "Cavity Preparation," Second District Dental Society, Brooklyn, New York, December 10, 1928.

Address and Clinic: "Gold Foil," Buffalo Dental Society, Buffalo, New York, January 12, 1929.

Address: "Use of Gold Foil in the Filling of Cavities in Anterior Teeth," Chicago Dental Society, Chicago, Illinois, January 15, 1929.

Hirschfeld, I.: Report of Committee on Scientific Investigations on Scurvy, American Academy of Periodontology, Minneapolis, Minnesota, August, 1928.

Address: "Vincent's Infection, Etiology and Treatment," American Dental Association, Minneapolis, Minnesota, August, 1928.

Clinic: "Periodontia," American Dental Association, Minneapolis, Minnesota, August, 1928.

Address and Clinic: "Differential Diagnosis and Prognosis In Periodontal Diseases," Second District Dental Society, Operative Dentistry Section, Brooklyn, New York, December 17, 1928.

Address: "Differential Diagnosis in Periodontal Disease," New York Hospital for Joint Diseases, Dental Staff, New York.

Address: "The Latest Developments in the Symptomology and Treatment of Stomatitis and Gingivitis," Northern District Dental Society, December 20, 1928.

Squires, William A.: Address: "Porcelain Jacket Crowns," Second District Dental Society, Brooklyn, New York.

Discussion of Marshall Weaver's paper "The Effect of Properly Constructed Removable Restoration in Underlying Bone Structure."

Address: "Porcelain Jacket Crowns," Eighth District Dental Society.

Address: "Porcelain Jacket Crowns," Chicago Dental Society.

Address: "Ceramics in Dentistry," Prosthetic Section, First District Dental Society, New York.

Address: "Porcelain Jacket Crowns," Eastern Dental Society.

Waugh, Leuman: Address: "Preventive Orthodontia," First District Dental Society, New York, December, 1928.

Address: "Nutrition and Teeth of the Labrador Eskimo," Horace Wells Society, Hartford, Connecticut, December, 1928.

Address: "The Labrador Eskimo, his Diet and Teeth," New Haven Dental and Medical Societies, February, 1929.

Address: "The Orthodontic Duty of the Dentist to his Patient," Massachusetts State Dental Society, Boston, May, 1929.

Address: "Importance of Early Recognition of Factors which Predispose to Malocclusion," Dental Society of State of New York, Rochester, New York, May, 1929.

Address: "The Teeth of the Labrador Eskimo," Sussex County Dental Society, Patchogue, New York.

Zimmer, Morris A.: Clinic and Address: "Dry Socket," New Jersey State Dental Society, Newark, New Jersey, January, 1929.

Address: "Pre-operative, Operative, and Post-operative Care in Exodontia," Union County Dental Society, Elizabeth, New Jersey, March, 1929.

Respectfully submitted,

Alfred Owre,

Dean

June 30, 1929

SCHOOL OF LIBRARY SERVICE

REPORT OF THE DIRECTOR FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

Sir:

I have the honor to present herewith the following report on the work of the School of Library Service for the academic year 1928–1929.

The number of graduate students registered during the Winter and Spring Sessions was 219, an increase of fourteen over the preceding year. This slight gain was due largely to the fact that a number of students who had spent two Summer Sessions in the School came back for the Spring Session to complete the work required for the first professional degree. The maximum number of full-time graduate students which it is possible to accommodate with the library and other facilities that can be provided in East Hall is about 200. This number was reached in 1927–1928, the second year in the operation of the School, and the first year in East Hall. Because of the limited accommodations the policy has been adopted of admitting only 160 first-year students. In the past year the number reached 194, but fifty of these were on a part-time basis, some of them taking only one or two courses.

The total number of graduate students registered as candidates for the degree of Master of Science was twenty-five. A slight increase is possible in this group. No definite limitation has yet been fixed, but a total registration of fifty, with thirty taking the degree in any one year may be considered the maximum number it would be practicable to accommodate under existing conditions with respect to library facilities, seminar rooms, and teaching staff. Twelve of the twenty-five candidates registered during the year for the degree of Master of Science completed all the requirements and were awarded the degree. The prerequisite year of professional training

was taken in the following accredited library schools: New York State Library School, four; School of Library Service, Columbia University, two; Library School of the New York Public Library, two; Simmons College School of Library Science, two; University of Washington, Library School, one; University of California, School of Librarianship, one.

One hundred and forty-nine students completed the requirements and received the degree of Bachelor of Science at the annual Commencement on June 4, 1929. Bachelor's degree, required for the admission of these 149 graduates, represented eighty-three different American colleges. Mount Holyoke College, the State University of Iowa, Smith College, and the University of Rochester each appear five times. Barnard College, the University of Michigan, Oberlin College, the University of Oregon, and Southern Methodist University each are represented by four students. The University of Cincinnati, Cornell University, Grinnell College, the University of Minnesota, and Syracuse University each appear three times on the list. Again this year, as last, eleven of those receiving the B.S. degree had their college training in a foreign institution, the countries represented being Canada, seven; Norway, two; Denmark, one; and Russia, one.

It was considered desirable during the formative period of the School that the body responsible for the policies adopted should be made up of administrative officers of the University, who were familiar with the general educational policy of the institution, and conversant with the methods and procedures followed in other departments. The Administrative Board appointed by the Trustees in 1926 for a three-year period contained no officer of the School except the Director. The members were Professor John J. Coss, Director of the Summer Session; Frederick Coykendall, a Trustee of the University; Frank D. Fackenthal, Secretary of the University; Robert H. Fife, Professor of Germanic Languages and Literatures; Roger Howson, Librarian of the University; Robert J. Leonard, Director of the School of Education, Teachers College; and the Director. Under the Statutes of the University, the

principal function of an administrative board is the control of the curriculum. The first Administrative Board had therefore the responsibility of adopting a curriculum, which was later approved by the University Council and has remained practically unchanged during the past three years. Once the School had found its place in the University organization. it seemed desirable that the Administrative Board should comprise several officers of instruction. Accordingly, at the expiration of the terms of the first Administrative Board, the Trustees appointed a new Board, consisting of the following officers, who will serve during the three-year period, 1929-1932: the President; John S. Cleavinger, Associate Professor of Bibliography; John J. Coss, Director of the Summer Session; Roger Howson, Librarian of the University; Ernest J. Reece, Associate Professor of Library Administration: Edna M. Sanderson, Associate Director and Assistant Professor of Library Administration; and the Director of the School.

It is a satisfaction to be able to report that in the three years since the School was established we have lost no teacher of professorial rank, and but one instructor. Several of the most experienced members of the staff have had tempting offers of teaching or administrative posts in other institutions. That they prefer to remain at Columbia is cause for genuine satisfaction. We have our own problems and difficulties; conditions are by no means ideal, but it may fairly be assumed that the opportunities and advantages at Columbia compare favorably with those offered in other library schools.

From the income of the Henrietta Church bequest, the New York State Library School Association, Incorporated, has established three named scholarships, to be known as the Florence Woodworth Scholarship, the James I. Wyer Scholarship, and the Edna M. Sanderson Scholarship. These scholarships have each a value of \$300 annually. The awards are made by the officers of the School on the basis of scholarship, personality, successful experience, and financial need. The three scholarships were held in the year 1928–1929 by R. Webb Noyes, Doris M. Wells, and Caroline Whittemore. The action of the Association in establishing these scholarships

stipulates that they shall be open, first, to candidates for the Master's degree, who took their first year's work in the New York State Library School, but that if applications are not received from eligible alumni of that School, the scholarships may then be awarded to the graduates of any accredited library school.

The Alumni Association of the Library School of the New York Public Library has provided funds in each year for one scholarship, covering the full amount of tuition. By means of a benefit theater performance given in April, 1929, the Association succeeded in raising enough money for the Mary Wright Plummer Memorial Fund, so that the income from the Fund will in the future provide a scholarship of \$300. This will be awarded to a candidate for the Master's degree who had his first year's work in the Library School of the New York Public Library. In 1928–1929 this scholarship was held by Mrs. Sophie A. Udin.

Lydia C. Roberts Scholarships, carrying a stipend of \$750 and traveling expenses, available to graduate students in Columbia University who were born in Iowa and graduated from an Iowa college, were held by four first-year students in the School of Library Service: Mary Dieterich, Bertha M. Frick, Lester M. Minkel, and Lucile M. Morsch.

A fund for the purchase of books representative of modern presses and typography, to be known as the Mary Louisa Sutliff Fund, was inaugurated by the Class of 1928. The Class of 1929, desiring to make a gift to the School, decided to add to the Sutliff Fund and raised \$150 for that purpose. An anonymous gift of \$50 was also made to the Fund by a graduate of the New York State Library School.

A professional school usually finds it desirable to maintain as close and helpful relations as possible with its alumni. It depends in the first place to a large extent on its own graduates to direct to it new students of ability and promise. Secondly, the alumni who occupy administrative positions usually turn to their own professional school when seeking new assistants for their own staffs. Graduates also look to their own school for personal and institutional support when they are seeking

professional advancement for themselves. These are among the quite obvious reasons for maintaining intimate contact between the school and the alumni. Library schools having in the past been very small, the total number of graduates of any one institution not exceeding a few hundred, it has usually been possible for a close personal relation to be maintained between most of the alumni and some officer of the school. The School of Library Service has been faced with a problem of greater magnitude in its alumni relationships. Taking over on its establishment the New York State Library School, the oldest in the country, and the Library School of the New York Public Library, which also had one of the largest alumni bodies, the School of Library Service rejoiced at the outset in an alumni group of some 1500. Although this is a very large group for a library school, it is, of course, quite small when compared with the alumni bodies of such institutions as Teachers College. This large group began at once to be augmented very rapidly by graduating classes far larger than had ever been known among American library schools. In its first three years the School has graduated nearly as many students as did the Library School of the New York Public Library in the entire fifteen years of its existence.

The School has therefore to assume for large graduating classes the responsibilities of any professional school to all who have studied in it and hold its degrees. By becoming the successor of the two older schools which were merged with it at the time of its organization in 1926 the School undertook so far as possible to extend to the graduates of these two schools all the rights and privileges of any graduate of the University.

It has been obvious from the beginning, particularly since the first class was graduated, that some regular means of communication was needed between the School and its own graduates and former students, as well as those of its two predecessors. This need has been met for the time being, it is hoped, by the publication of a modest bulletin bearing the title *Library Service News*, the first number of which appeared in April, and will for the present be published bimonthly. It is planned to meet the cost of printing and

distribution by a nominal subscription price, which it is felt that practically every graduate will be willing to pay, in recognition of the effort which the School and the University itself are always ready to make to be of service in personal and professional ways to all who hold any kind of alumni relationship to it.

As the work of the School develops, the need for larger quarters, especially planned and equipped for professional instruction in the various branches of library service, becomes more and more acute. More space is urgently needed for administrative offices, for the studies and offices of members of the teaching staff, for laboratory and study rooms for students, and, above all, for the departmental library. At present the library is housed in seven different rooms in three separate buildings. This condition makes administration difficult and expensive, and unsatisfactory to both student and teacher. The lack of space for books as well as for readers prevents the building up of an adequate collection in bibliography and library economy. The classrooms and lecture rooms assigned to the School in the School of Business building are as satisfactory as could be expected of rooms used in common by various departments. What the School needs in order to put its instruction on a sound basis is a series of rooms equipped with permanent exhibits of books and other materials, and with apparatus for employing visual methods of instruction.

During the Summer Session of 1928 the book stacks in Room 422 on the top floor of the University Library were reconstructed in such a way as to more than double the shelf capacity, and at the same time provide a lecture and seminar room for many of the smaller advanced classes. Although the lighting and ventilation of this room leave much to be desired, it has the great advantage of being in the Library building, so that books which an instructor wishes to have at hand can easily be taken into the room in such quantities as are necessary and left there from day to day.

About 350 students registered for courses in Library Service in the 1928 Summer Session. Thirty-one different courses

were offered by some twenty instructors, about half of them recruited from the regular teaching staff of the School, and half from other library schools and from active library service. Apparently the number of those desiring to follow in Summer Session the curriculum prescribed for the professional degrees will continue to increase up to the limit of the physical facilities available. It does not seem possible under present conditions to care for more than 500 students in Summer Session. Measured by the demands on the Library and other facilities, this is about the equivalent of 200 full-time graduate students in a regular session. In a Winter or Spring Session nearly all students have the same program, so that their demands tend more to concentrate on a given section of the Library than in the Summer Session. The reason for this is, in the first place, that a greater variety of courses is offered in the Summer Session, and that only a part of the students are taking any one course or subject. For example, only about one-quarter of the candidates for the B.S. degree take such a subject as book selection or trade bibliography in the summer. Nevertheless, the Library is hard-put to provide adequate service in the Summer Session, and an office staff reasonably adequate to care for a registration of 200 full-time students in regular session is severely taxed to care for a Summer Session registration of almost double the number.

A program of Home Study courses in library service has been inaugurated during the year in coöperation with the Home Study Department of the University, which is responsible for the business and routine administration involved in such instruction. Miss Marion Horton, for the past ten years principal of the Library School of the Los Angeles Public Library, was appointed to the staff of the School of Library Service as Supervising Instructor of Home Study Courses, and began her work on September 1. An attractive Announcement of courses in library service was issued by the Home Study Department in January. Two types of courses are offered. One group deals with different aspects of library service in an elementary way, designed for untrained workers who wish to supplement their limited experience by some

kind of systematic study but are unable to enroll as resident students in a library school. Other courses of a more specialized character are planned to meet the needs of the librarian who may have both professional training and experience, but finds it desirable to make a thorough study of some phase of library service in which he has not had sufficient training or experience.

Reference was made in the report of last year to a question that had been raised by the Board of Education for Librarianship of the American Library Association and the Committee on Academic and Professional Higher Degrees of the Association of American Universities as to the propriety of recognizing the first year of study in a graduate library school by conferring the degree of B.S. The matter was referred to a special committee of the Association of American Universities of which Professor A. O. Lauschner of the University of California is chairman. A report presented by this Committee and adopted by the Association provides:

If the first year offered to graduates is organized at least on a basis equivalent to an undergraduate major and if it constitutes a complete curriculum in itself which fits for general library service, then the conferring of a second Bachelor's degree, with or without a qualifying phrase, instead of a certificate should be determined by the individual institution in accordance with its general policy in regard to granting a second Bachelor's degree. The standard of the graduate curriculum of one year should be at least that approved by the Association of American Library Schools and by the American Library Association.

Reference has been made above to the necessity of limiting enrollment on account of inadequate library and other facilities. This, however, is not the only, nor indeed the primary, reason for our selective system of admission. If only 160 first-year students can be admitted, it is clearly advisable to accept only those who give promise of promptly making a place for themselves in some branch of library service and passing rapidly into positions of responsibility, with many years of professional service ahead of them. A serious effort is made to achieve this result by approving applicants for admission only after careful examination of such facts as can

be secured in regard to their ability and personality, instead of accepting those who meet the formal educational requirements in the order in which they present themselves until the limit previously decided upon is reached.

The selective process centers attention on age, mental ability, previous records of scholarship, knowledge of modern languages, independent intellectual interests as shown by the amount and character of voluntary reading of books and magazines, previous experience in some kind of library work, and personal traits which have been found to be most important in the different types of library service. Applicants are sometimes rejected because they are believed to be too old to be a safe risk, either from their own personal point of view or from the point of view of the School. It is stated in the Announcement that "Persons over thirty-five are advised not to apply unless they have been continuously engaged in library work or in some similar intellectual pursuit."

Many applications are received from persons well over thirty-five. A few of them have had successful experience in some branch of library work and have reached a point where they wish to get complete professional training, either for their own personal satisfaction, or for professional advancement, or in order to change to some other type of service. They may even find it necessary in order to hold their present position under institutional or governmental rules and regulations. Age is not usually allowed to debar such applicants, especially if they come on leave of absence, intending to return to the same position or to another one in the same institution. It is not often that an applicant is rejected because he is too young, for few students graduate from college under twenty. In case of doubt on some other point, however, a very young applicant is occasionally advised to take a position as an untrained library assistant for a year or more before seeking admission.

The applicant's college course is examined with reference both to its content and the record of success as shown in the grades attained. The object of requiring a Bachelor's degree for admission is to give a reasonable assurance that the applicant has what is known as a "liberal" education. Many institutions, even some of those on the University's approved list, confer the Bachelor's degree for a course of study that is very largely vocational in character. Specialized training for other professions, even for teaching, furnishes an inadequate basis for librarianship.

To have any chance of being admitted to one of the best medical schools, a student must have made his choice of a profession early enough in his college course to have shaped his program of study so as to include a large amount of the pre-medical sciences, biology, bacteriology, chemistry, and physics. The decision to take up library service is often not made until a student has completed or almost completed his college course. Then too frequently it is discovered that he has had an inadequate or unsatisfactory preparation for professional library training and for many kinds of library service. Perhaps the most frequent defect in college preparation is the lack of modern languages, German particularly.

Since the content of the college course giving a satisfactory preparation for library service is not confined within such definite limits as in the case of medicine, engineering, and some other professsions, it seems to be assumed by many students and even by vocational advisers that the character of the college course does not matter. Hence, too often it is to be feared, the college senior who has failed to plan his course for any particular profession thinks of business or of teaching, and if neither of these seems attractive he may turn to library work. If the number of applicants for admission continues to increase, it is probable that we shall find it desirable to pay more and more attention to the character of the college course pursued by the candidate. This will mean that a student who has not decided before he is through college that he wants to enter the library school may find himself debarred. Inability to read modern languages is the most serious and most common defect at the present time, and this should be called to the attention of deans and vocational advisers of colleges throughout the country.

Advice is occasionally sought as to how to plan in advance

a college course to prepare for library service. As satisfactory a general statement as we have been able to make is printed in the annual Announcement. With the hope that it may reach some who ought to be guided by it, but will not see the Announcement, the statement may be quoted here:

In general, the best preparation for library service includes a rather wide range of subjects and no part of the college course is to be considered as pre-vocational in the narrower sense. Foreign languages, literature, history, economics, sociology, psychology, and the natural sciences are all important. A student preparing to enter the School of Library Service should not fail to acquire a good reading knowledge of French and German. Other modern languages are useful and some knowledge of Latin is highly desirable. In planning his college course the student should ordinarily seek breadth of view and an introduction to many fields of knowledge.

It is a well-known fact that grades received in college are not closely correlated with success in professional or other careers. No scientific studies have been made of the correlation of college grades with grades in the library school or with success in professional library work, but rather careful attention to the college records of students admitted to the School of Library Service points to the conclusion that an applicant who has made only an average record in college and in some subjects has fallen below the average is not likely to do well in the library school or make a marked success in his professional work. College records have, of course, to be read with discrimination. High grades in a small, weak college may not point to exceptional mental ability, while low marks in certain institutions are not to be interpreted as an indication of inferior ability. Some able students are indifferent to marks, while others make weak or irregular records because they devote themselves to extracurricular activities or to earning their living. However, allowance having been made for the defects of college grades as a criterion of intellectual capacity, they do seem to be one of the most dependable elements in our selective system, and applications are frequently rejected on account of poor college records.

A library school is forced in self-defense to adopt a selective system in which general ability and suitable personality, as

well as excellence in scholarship are emphasized, because of an unfortunate but widely prevailing opinion that these qualities are not required by library workers. Even college professors and student advisers in the best colleges seem to entertain this mistaken idea. Applicants for admission naturally include college instructors in many cases among the names they are asked to give of persons who can speak from personal knowledge concerning their character, experience, ability, and fitness for library work. Their answers to the specific questions about applicants reveal the attitude of college teachers toward library work as a career. To the question, "Do you consider the candidate's ability (a) exceptional, (b) more than average, (c) average, or (d) less than average?" the answer not infrequently is "Average general ability but probably above the average for library work." In some such expression as this a college professor often reveals his opinion that a mediocre student is quite likely to shine among librarians. One professor of English in a southern college answered in the superlative most of the questions put to him about an applicant, and in regard to his general ability wrote "Too much ability to be a librarian." We have had some reason to feel that this attitude on the part of college officers and teachers may be in part responsible for the fact. which those familiar with conditions have long admitted to be the case, that men and women of superior ability do not frequently enter the library profession.

There is some reason to fear that the vocational advisers in certain institutions of high rank quite unconsciously pursue a policy of directing graduates of mediocre ability and attainments into library service. It is not at all uncommon for an applicant to admit that he thinks of turning to library work because there seems to be nothing else open to him. Mature men and women who have tried unsuccessfully one or more kinds of work frequently decide they are certain to succeed as librarians if they are permitted to take the training. The same complaint is heard, of course, in regard to the profession of teaching. In both fields the need at the present time is not the recruiting of larger numbers so much as it is to increase

the proportion of applicants of superior ability among those seeking admission to the training schools.

The library schools must assume a considerable part of the difficult task of combating this low and entirely erroneous opinion of the intellectual and personal qualities required in library service. The schools are the gateway to the profession. Its standards will be those maintained by the library schools as a group. On the assumption that an acute shortage of trained librarians has existed, many new library schools have been started in the last few years and enrollments in the older schools have been greatly increased. It remains to be seen, however, whether this effort to increase the quantity of the library school output will result in the long run in the improvement of library service.

Little is known of the part which the librarian's own reading habits have in his professional success. In some types of library service it must be a preponderant element and in all types it is probably a very important one. It would therefore seem to be desirable to pay particular attention to the reading habits of applicants for admission to a library school. By the time a man or woman is through college and has had one or more years of experience in library work or in teaching or in some other field, the reading habits he will carry through life have probably been pretty well fixed. At all events, the library school in one short academic year has all it can do to impart the minimum essentials of library training without attempting to form or reform the student's reading habits and interests, which would involve in most cases a thorough diagnosis and treatment for defects in his general education. our selective system of admission we learn far less about an applicant's reading habits than could be desired. He is asked to list the general periodicals he reads regularly, as well as the professional library journals, and to list as many of the books he has read in the last two years as he can recall. The answers to these simple questions, however, are revealing. Occasionally it appears that a college graduate who aspires, as a librarian, to guide the reading of the public finds sufficient mental nourishment in Good Housekeeping or the Literary Digest, or fails to recall a single book, old or new, of any literary merit which he has read in the two years preceding. It goes without saying that an applicant with such limited reading interests is denied admission.

Information of much significance, though not easy to evaluate and interpret, is secured by means of a questionnaire sent to persons whose names the applicant gives when requested to submit "the names and addresses of at least three people who can speak from personal knowledge concerning your character, experience, ability, and fitness for library work." Usually these "references" are personal friends who, desiring to help the candidate, magnify his virtues and abilities and ignore his defects. Often they frankly confess they do not know much about the applicant. Few of the replies can be taken at their face value, but studied comparatively they do as a rule assist greatly in reaching a decision as to whether an applicant should be accepted or rejected or given further investigation. The only replies that as a class are found to be accurate, discriminating and reliable, come from librarians. This is but natural since a librarian looks upon an applicant for admission to the profession, even though he may be a personal friend, with reference to the qualities which he knows from experience are necessary for success. If the librarian who has a first-hand knowledge of the work of an applicant reports, for example, that he does not have a sense of accuracy, is not scrupulous in keeping appointments, or does not work well with others, admission is refused, or a more thorough investigation made.

A personal interview by one or more officers of the School is desirable, but it would obviously be impracticable to require every applicant to come to New York for that purpose. In case the correct decision is not reasonably apparent from the documentary evidence, a candidate who lives within easy reach of the University is asked to come for a personal interview. Arrangements are often made for an applicant living in some other part of the country to be interviewed by a librarian known personally to officers of the School, usually one of our own graduates who has had experience in selecting

applicants for his own staff, in whose judgment we have confidence. Reports from such interviews ordinarily clear up a doubtful case. Such coöperation on the part of librarians is highly appreciated, and I wish to take advantage of this opportunity to express the thanks of the School to those who have assisted in this way.

The officers of the School wish also to record their appreciation of the efficient service and sympathetic helpfulness of the Director of Admissions of the University, Professor Adam Leroy Jones, and his assistants. Because of the application of the selective system to all who seek admission to the School, both in regular session and in Summer Session, our relations with the office of the Director of University Admissions are close and continuous throughout the year, but the same spirit of helpful and courteous cooperation has marked the relations of the School of Library Service with all other departments of the University. Partly because of the inadequate quarters of our own departmental library, but mainly because the book needs of a library school student are heavier and more varied than those of the average graduate student, the full cooperation of the University Library is vital to the success of the School. Individuals may not be named, but students and staff both appreciate the efficient and willing service that is rendered by many departments of the University Library.

Respectfully submitted,

C. C. WILLIAMSON,

Director

June 30, 1929.

UNIVERSITY ADMISSIONS

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report for the academic year ending June 30, 1929.

The new system of admission to the School of Law went into effect with the class entering in 1928. The use of a capacity test was the most important new item in the system. Of the 451 who applied, 78 were rejected chiefly because of their low marks in the test. This test contributed also to the withdrawal of their applications on the part of 78 others. A number of those who were excluded entered other well-known law schools. So far as possible their records will be followed up with a view to discovering the degree of their success in the other schools. Without doubt most of them will be unsuccessful. The years of preliminary trial given to the test with students in our own School of Law make it clear that those who received low marks in the test could not have hoped to be successful here.

The class admitted to Columbia College in September, 1928, was an unusually good one and the prospects are excellent for a still better class in September, 1929. The number of applicants has steadily increased and the quality has on the whole increased with the numbers. As the number admitted has remained substantially the same, the result has been to provide progressively better classes.

The activity of alumni has recently resulted in a gratifying increase in the number of applications of good quality from distant points. The Columbia University Club scholarships have helped to make it possible for many such applicants to enter Columbia College in spite of financial handicaps.

The generous action of the Trustees last spring in setting

aside a sum for special aid for students has permitted provision for the coming year for a number of special Honor Scholarships for students of outstanding qualities. In addition to the usual academic qualifications the following qualities have been especially considered in awarding these scholarships: school citizenship, noteworthy intellectual interest, capacity for responsibility, outstanding integrity of character, fineness of personality, faithfulness and loyalty, æsthetic appreciation, success in academic duties, social leadership, vitality and vigor.

To be eligible, a student must have been nominated by his principal, who is asked to send in a full report regarding the nominee's moral and intellectual qualities and achievements and his background. Recipients of these awards are expected to live in the University dormitories. It is hoped that they will form a competent and outstanding group in the college body.

Aside from the changes in the entrance requirements of the School of Law last year, the requirements for admission to the several schools of the University have remained substantially the same in the last few years.

I should like again to urge that the proposal for some kind of selective system of admission for the Graduate Schools receive serious attention. The admission of poorly qualified students who are unable to meet the requirements for a higher degree is hardly fair to them unless they understand clearly that their chances of receiving such a degree are negligible. If they were to receive such degrees in spite of their inferior qualifications the inevitable consequence would be a depreciation in the value of such degrees. Uniform administration in the regirements for higher degrees when these requirements are administered by a large number of different departments having little contact with each other and no adequate provision for uniformity in administration, results necessarily in very great differences in standards for higher degrees. In the circumstances, one of the best safeguards against granting such degrees to incompetent students is the elimination so far as possible of such students before they

begin their work in the Graduate Schools. A suitable selective system would provide a means for such elimination.

We have become so accustomed since the war to reading of large annual increases in college enrollment that this year's increase of only two per cent is almost startling. This figure is for the 216 colleges in the approved list of the Association of American Universities, but as the list includes most of the stronger institutions, it is doubtless even larger than it would be if all the colleges in the country were included.

Is this lessened acceleration to be taken as merely accidental and temporary or is it the beginning of a permanent slowing up or a possible decline? There are good reasons for believing that it may be more than temporary. The slowing up has no special geographical limits. In twenty-two states there are actually fewer college and university students than in the previous year and these twenty-two states are scattered through every section of the country from New England to the Pacific coast. Of the 216 institutions, 101 have smaller enrollments than last year. Smaller enrollments are found in colleges having fewer than 500 students, in colleges with more than 3,000 students and in those falling between these two groups, though, the proportion of those with decreased enrollment is smaller as we proceed from the smaller to the larger institutions. It is not even certain that those with increased enrollments may not have lost ground. Some of them show very small increases. In six states in which there was a gain the total gain was less than one per cent. In a college which has been growing rapidly there may still be an increase in total enrollment even with a diminished number of new students, provided that the new accessions exceed the relatively small outgoing senior class plus some loss from other classes. As a matter of fact there have been successive decreases in the freshman classes in a good many institutions in the past two or three years.

Decreases, then, are not confined to any one part of the country nor are they entirely new to many of our colleges. Some of those who are familiar with elementary and secondary schools tell us that the great increasing wave of attendance

in the secondary schools has reached its crest. It is possible that the same is the case in the colleges. If this be true, further increase in college attendance can come only through an increase in the proportion of secondary school pupils who go on to college.

In this connection, among others, the part to be played by the junior college may be very significant. Undoubtedly the growth of the junior colleges has cut down to some extent what would have been still larger increases in the four-year colleges. Within a few years junior colleges have increased in number to more than 400. The statistics cited above do not include the enrollment in junior colleges but there is no reason to suppose that there has been so marked an increase in their enrollment since a year ago as to explain the sudden check in the growth of the 216 institutions for which a report has been made. It is true that two of the states showing decreases, namely California and Wisconsin, have numerous and well-established junior colleges, but so have Minnesota and Texas which show increases, while Pennsylvania and New Jersey show decreases with very little development of junior colleges.

While the junior colleges have absorbed some of those who would otherwise have gone to swell the numbers of other colleges, their student body has doubtless been made up in large part of those who, if the junior colleges had not been established, would not have gone beyond the high school. The junior colleges have thus helped to increase the percentage of high school students who continue their education. However, there seems to be no present reason to expect the proportion of high school students going on to college to increase very greatly or very rapidly in the country as a whole. It would seem very probable also that such increases as come would be absorbed by the junior colleges, and even though a considerable proportion of the junior college graduates should continue in four-year colleges or professional schools, the totals in these are not likely to increase rapidly, if at all.

Looking to the more distant future, large increases in college and university attendance are not in sight. Our much smaller immigration brings many fewer prospective college students. Our native rate of increase is small. It has been claimed that whereas in 1916, 22.5 children per thousand reached the age of one year, less than 20 per thousand reached that age in 1926. It has been said that our present birth rate is 21 per thousand as against 19 per thousand in France, and that if the southern states with high negro birth rate are excluded our rate is only 17 per thousand. Certainly the growth of population is much less than a few years ago and the growth of colleges is very likely to fall off still more in the course of a decade unless the values or other attractions of college training shall come to appeal still more widely than at present.

Additional educational requirements for admission to the professions would of course favor increased college enrollment. The New York State requirement of one year—in 1930, two years—of college work as a preliminary to the study of law in place of the mere secondary school requirement previously in effect, is a case in point. Such increased requirements in several professions in a number of states may be expected.

A higher valuation of college education as a training for business life would work in the same direction. In the long run, solid improvement in college training will increase the demand for such training. The strong institutions will probably continue to grow partly at the expense of the weak, but any general high rate of growth in the future would seem to depend on a still stronger feeling on the part of the public that a college training is a valuable asset.

As for the bearing of all this on Columbia University it seems to me clear that we have no reason to expect any deterioration in the quality of our applicants or any falling off in their numbers. As we have seen, the large universities have on the whole the stronger drawing power, particularly when they are situated in large cities. The movement of the population toward the large cities has potency even in the educational field.

In the second place, we have not admitted nearly all of the eligible applicants who have applied in recent years. Consequently, even if the number of applicants were to be considerably less, we should still have full classes. The institutions

which are suffering most from the slackening in applications are those which have accepted all eligible comers. There is evidence also that the weak institutions and not the strong ones are feeling the pinch. Moreover, it seems to be true that even among undergraduates, genuine educational values are being sought by a growing number of students.

Another item of importance which will not, however, greatly affect full-time registration, is the greater interest in adult education and the growing number of adults who are seeking further formal education in the universities.

We can, I am sure, look forward to the maintenance of our full-time student body at an even higher level than in the past, and to an increasing demand for educational opportunities for adults.

The approaching celebration of the 175th Anniversary of the founding of King's College suggests a comparison of present conditions in various departments of Columbia's present activities with those of the little college out of which it grew. We have no full account of the administration of the entrance requirements but we know that at the beginning the President attended to the matter himself. He examined the candidates, passed upon the results of the examinations and decided who should be admitted. Every candidate had the personal attention that we have tried in recent years to provide.

It seems to be commonly believed that in those early days all applicants were animated by a single-minded devotion to learning. Extracurricular activities played little part, it is true. Young Custis, Washington's stepson, who was a student for a time, congratulated himself on having brought his riding horse since, as he said, there were no other opportunities for exercise. Various forms of amusement were no doubt to be found. The Book of Misdemeanors which records infractions of discipline in some of the early years makes that clear. Certainly not every student continued his studies to a successful conclusion. It is recorded of one small early class that after about two years one student went to the College of Philadelphia, after about three years another went to mer-

chandising, after about two years another went to privateering, and after about two years another went to nothing. Young Custis terminated his own studies because he found that his absorbing interest in the daughter of the governor of Maryland prevented his gaining any profit from his studies.

Apparently neither human nature nor the problems of college administration were so different in the middle of the eighteenth century from what they are now. Our greater numbers and our more complex environment bring new difficulties, but our more definite standards help to remove old ones. Mechanical methods of administration have been tried in the past with unsatisfactory results. The facts to be dealt with are too complex and the special factors in individual cases are too significant to make such methods suitable. Intelligent administration, at any rate so far as existing requirements are concerned, would seem to call for methods which shall preserve the advantages of system, objective measurement and uniform standards, while making a place also for personal contacts, experienced judgment and the consideration so far as possible of all the significant factors.

Respectfully submitted,

ADAM LEROY JONES,

Director

June 30, 1929

REPORT OF THE UNIVERSITY MEDICAL OFFICER

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

As University Medical Officer I take pleasure in sending to you the following report of the work accomplished during the academic year 1928–1929, together with an outline of the new responsibilities to be assumed by this department with the beginning of the academic year 1929–1930.

There is always satisfaction in reporting that the University community as a whole has enjoyed good health during the year. Epidemics are always a possibility in a group as large as ours; but we are fortunate indeed in looking back over seventeen years of work on the campus, to find at no time any disease spreading in our community to epidemic proportions.

In addition to the summary below, this year I have prepared an addendum giving an analysis of the conditions treated at the Earl Hall office during the Winter and Spring Sessions. This is done in response to the many inquiries as to the character and scope of the work done at the University.

SUMMARY

OFFICE CONSULTATIONS

		O.	r F I	CE	C	OI	50	LI	A	110	14.5	,								
University Office .																				27,237
Barnard Office																				
Johnson Infirmary (
John Jay Infirmary	Offic	ce																		951
																				40,889
NUMBER OF INDIVIDUALS RECEIVING OFFICE SERVICE																				
													M	en	ı	V	Vo	me	n	Total
University Office .													5,0	029	9		1,2	202	2	6,231
Barnard Office																	Ι,Δ	152	2	1,452
																				7.683

INFIRMARIES

						Bed Patients	Infirmary Days	Average Length of Illness
Johnson Hall							1178	2.77
John Jay Hall		٠		٠		305	1496	4.9

The Barnard College field is organized somewhat differently from that of the University. This has come about naturally owing to the fact that at Barnard we are dealing with a comparatively small group of students and are therefore able to combine the curative medical work with a practical personal hygiene program. In Barnard College, students are required to report to the College Physician at stated intervals. Therefore the student is under constant health supervision throughout her entire college course. This is an ideal type of health service, but unfortunately can operate satisfactorily only in a small group and where the academic, recreative and social organizations are confined rather closely within the group limits. Last year the total registration at Barnard was 1,292. The number of treatments given to students by the College Physician and her staff was 10.672. The number of different patients seen, including staff and students, was 1,452.

We have constantly in mind a critical study of our health program in order to minimize the less important and the unproductive types of medical supervision. This makes it possible to place more stress upon a medical program that has been proven of value to our patients and students. It necessitates a change from time to time of the emphasis in certain departments of our work, for as our problems vary, so must our point of attack. At Barnard, Dr. Alsop, aside from the routine medical work, has placed special emphasis during the past year upon the matter of health in relation to diet. An effort has been made in personal conferences and in the hygiene lectures to discuss health, energy, and resistance to disease on a broad scientific basis in relation to diet as against the fallacy of measuring one's health status by the weight of the body in relation to height. For some years we have been considering diet only as a means of regulating weight; health,

comfort and physical vigor have been secondary considerations. Advertisements have sought to popularize reducing diets without regard to individual needs and reactions, or to basic causes. Since women are more concerned both personally and practically with matters of diet for themselves and their families, it seems fitting that they should be given the fundamental facts from a scientific standpoint to counteract the tendency to control weight by an often insufficient diet and with little knowledge of those foods which are essential to build up resistance to disease and which should be included in every diet if it is to furnish the basis of good health, strength, endurance and comfort, with ratio between age, weight and height as a secondary and relatively less important goal. For the person who seems overweight it is of prime importance to lose the undesirable pounds without the loss of strength, energy, and resistance to disease. This is wisely done not by attempting to lose weight through diet or any other means recommended unconditionally by friends and advertisements, but by having first a thorough medical examination and on this basis having the method and details of weight reduction supervised by a physician.

During the year we have faced several problems which it is our intention to study with a view to the adoption of preventive measures. Among these are the condition of the mouth in relation to infections of low virulence that tend to destroy the health of the gums and the teeth; the frequency of focal infections in mouths that appear normal on clinical inspection; the frequency of sinus involvement without local symptoms recognized by the patient; the frequency of mild epidemics of furunculosis of the ear canal without apparent common sources of infection; the prevalence of skin lesions that would seem to be due to changes in body metabolism rather than to exogenous causes; the effect of diet, of worry and anxiety, or sleeplessness upon the body functions and the ability of the patient to carry on. These and others are the problems that we are trying to solve for the benefit of our students and faculty. We have a satisfactory field in which to work and we appreciate all too well our responsibility not only to our

patients but to the private physicians with whom we wish to coöperate in raising the standard of healthful living.

The commonest cause of loss of time from college is the ordinary cold. It is interesting to note that of the 274 Columbia College men who filed excuses for absences in the Dean's office, 161 stated that they had suffered from colds; 10, from acute respiratory diseases; 10, from tonsillitis; 14, from sinus trouble; 12, from digestive disturbances; 15, from infections: 17, from injuries; 8, from appendicitis; 6, from contagious diseases. The remaining 21 cases were due to almost as many different afflictions in the field of medicine and surgery. Of the 3,046 days of absence reported by these 274 students 1,003 days were lost because of the common cold. At the Earl Hall office from October first to May thirty-first 7,574 treatments were given for colds; and during this same period 14,825 treatments were given for all other conditions. These figures show the prevalence of cold infections throughout the year, with a sharp rise in the virulence of these infections during January, February, and March. Undoubtedly the cause of many of these infections is lowered resistance due to fatigue and to indiscretions in diet. We find that most patients who place themselves under treatment immediately when the first symptoms of a cold are noticed, and who take advice about rest and diet, respond quickly to treatment, thereby protecting themselves from loss of time and others from the spread of their infection. In order to encourage students to report for early treatment, we have made an effort to plan our work and equipment to treat such cases rapidly. A student often begrudges the time spent in seeking medical help for what seems to be a trifling indisposition, but experience is apt to teach him the wisdom of not neglecting such illnesses in their early stages.

In reviewing the year's work it is gratifying to discover that there is on the records no case of typhoid fever. This is indicative of the effectiveness of the work accomplished by our city, state, and national health boards, and of the value of typhoid immunization. Typhoid fever and smallpox have been now for many years preventable diseases and for any community to allow their spread is an indictment of its

neglect to appreciate and use available knowledge and opportunities to protect its members. Last fall 592 men filed the pre-registration medical examination blanks required for all candidates for admission to Columbia College. Of this number, 110 reported immunization against typhoid fever and paratyphoid; 528 had been successfully vaccinated against smallpox. We are disappointed to find that only about twenty per cent of our incoming students have received protection by inoculation against typhoid. It is true that the strict supervision of our water and milk supplies reduces the likelihood of infection from these sources, but with all the care that the health authorities may use we are not protected against danger from uncooked foods, especially fruits and vegetables that may easily come from infected regions, nor are we protected from the undiscovered carriers who may find their way into places where they may spread the disease that they habitually harbor. Statistics of typhoid immunization show that it gives almost one hundred per cent protection and that there is no danger from its proper administration. We hope that through the publicity of its effectiveness in preventing typhoid fever, the majority of our citizens will be foresighted enough to use this method of guarding themselves and others against a dangerous illness. It should become as universal as smallpox vaccination.

Pulmonary tuberculosis also has fortunately been found in fewer students this past year. This is another disease that we should strive to eliminate by watchfulness and early diagnosis and treatment.

The Dental School Faculty has been of great assistance to this office during the past year. Dean Owre has coöperated splendidly with us in the solution of the problems of dental care among the students unable to afford even a moderate fee. The intelligent care of the mouth is one of the first steps toward good health. Each year we find among our patients a number who have neglected the care of their teeth because of limited funds. These patients frequently suffer from gastrointestinal symptoms due directly to improper mastication. Their physical health cannot be improved unless their

teeth are put in condition to function well. Dean Owre has made it possible through the Dental School practice clinic to care for these patients at a minimum cost.

This fall it is planned through the cooperation of the Dental School to have a careful examination of the teeth of the Columbia College freshmen. Conditions found requiring treatment will be referred to the students' own dentists or, in cases where the student cannot afford the necessary dental work, to the clinic at the Dental School. There will be established this fall a dental hygiene clinic on the campus, if a room can be found to accommodate it. This clinic will be under the direct administration of Dr. Hughes, Professor of Preventive Dentistry in the School of Dentistry. The clinic will be run for the benefit of the students. They will have an opportunity to have their teeth cleaned and to receive instruction in the care of their mouths and especially in the most effective use of the toothbrush. This clinic will be educational in its aim and we hope will demonstrate to our students the value of dental hygiene so that when they leave the University they will have established the habit of reporting regularly to their dentists for periodic examination. Prophylactic dentistry aims to preserve the normal condition of the teeth and its value should be more generally understood. To wait until decay is present is to endanger one's future health. Dentistry is a special field of medicine and the problems of growth, nutrition, infection, and immunity are as vital to the field of dentistry as they are important in the field of medicine. In the Dean of our Dental School we have a man who appreciates, not only the broad scientific outlook of his profession, but who also has an interest in our student health problems and is ready to put his equipment and staff at the service of our students.

SUMMARY OF CONDITIONS REPORTED ON FRESHMAN MEDICAL EXAMINATIONS

					1927-1928	1928-1929
Total number of examinations					629	592
Abnormalities due to injuries					7	14
Cardiac diseases					18	23
Defective hearing				•	6	5

Dental defects	13	10
Ear diseases	37	36
Enlarged cervical glands	8	10
Eyestrain	198	170
Hernia	5	5
History of measles	482	470
whooping cough	233	327
chickenpox	312	292
mumps	287	255
scarlet fever	79	97
diphtheria	60	44
rheumatism	2 I	9
malaria	26	17
typhoid fever	15	8
surgical operations	330	339
previous physical, mental or nervous disability	8	10
discontinuance of study for a period owing to		
illness	57	43
an illness of more than one week's duration		
within past two years	45	26
limitations placed upon amount and character		
of physical exercise	62	67
Nervous diseases	10	I
Nose and throat diseases and abnormalities	60	49
Orthopedic diseases and defects	19	30
Skin diseases	37	47
Subject to sore throats, colds and coughs	287	22 I
headaches	30	29
gastrointestinal disturbances	35	21
Successful vaccinations	557	528
Typhoid immunizations	128	110

The foregoing comparative summary of the conditions recorded on the medical examination forms of the applicants for the freshman class of Columbia College for the academic years 1927–1928 and 1928–1929 is interesting in that it shows certain variations in the history of the two groups that may be due to several causes. These examinations were made by almost as many physicians as there are students in the groups. This coming year we will be able, through our new plan of making the complete physical examinations of our freshman group at the beginning of the fall term, to check up on the conditions recorded on these pre-registration medical blanks

and to determine in each individual case the cause of such handicaps as defective hearing, ear disease, cardiac disease, eyestrain, headache, frequent colds, and gastrointestinal upsets. Of utmost importance will be the study of those who give a history of previous physical, mental or nervous disability, of discontinuance of study for a period of time because of illness or who have had limitations placed upon the amount and character of physical exercise. For several years past we have placed under supervision all students whose personal and medical histories have shown variations from normal. This approach to the solution of this particular problem is not so helpful or scientifically accurate as will be the approach to the group through complete examinations made by a small number of physicians during a stated period with routine methods of observation, tests, and recording.

The comparison of a student's physical condition and his academic record is constantly of interest to us in discovering the possibility that poor scholastic performance may be the result of some physical cause. The present academic organization of Columbia College, under the leadership of Dean Hawkes and the student advisers, fits in very well with our medical organization, giving us for every student a source of information outside of himself and another angle from which to scrutinize his difficulties. The autumn physical examinations will give more stability to the relationship between the Dean's office and the University Medical Office.

Upon the recommendation of the Dean of Columbia College, the Professor of Physical Education, and the University Medical Officer, the responsibility for the examination of the Columbia freshmen was transferred this year from the Department of Physical Education to the Medical Service Department, the first examinations under the new régime to begin in September, 1929. It is planned to complete them during the first three weeks of the college year. All of the records will be filed in the office of the University Physician. These records combined with those of illnesses will be of great value in the more intelligent treatment of patients. Reports of students' physical examinations will be forwarded at once

to the Dean's office, where, if necessary, programs of study will be modified in individual cases. The Medical Director of the Department of Physical Education will also be given a summary of the physical condition of each student and will use this knowledge in assigning the required work in physical education. The program of gymnastic and athletic training is so graded that the average normally developed and healthy boy may participate in it with enjoyment and decided benefit to his physical and mental well-being. Those students, however, who present physical weaknesses or deformities are not required to attempt activities that might in any way injure them. Programs for these students will be modified by the Medical Director of the Gymnasium to meet their special needs as shown by the complete physical examinations.

The physical rating of every student will be sent as well to the Secretary of the Student Employment Bureau, so that he may be guided in finding employment of a suitable type for the student who must earn his way, more or less, through college. Mr. McKnight's reports indicate that an increasing number of students seek employment from year to year. The health report to Mr. McKnight will in no way work against the best interests of the man who must earn money to pay his way in college; but it will be the means, we hope, of securing the type of work he can do with the least harm to his present and future health. We approve of college men holding part-time jobs, provided that they do not attempt to work too many hours and that they do not assume responsibilities that are too heavy in conjunction with their programs of study.

Our health service is based upon a determination to help the individual, but we will accumulate records from the groups examined each year that may be studied and the conclusions made the basis of advice to future incoming students. The direct value of these medical examinations can be calculated in a few years if careful records are kept and studied intelligently. Most of the men examined can be followed for a period of at least four years and many for a longer period. Through the college alumni affiliations a further check-up can be made. These health histories running

over years with a selected group of men should afford much helpful data. We hope thus to improve our methods of making the physical examinations and to determine their ultimate value individually as well as collectively. From an educational standpoint we have an ideal field in which to develop an organization that will demonstrate through the four or more years that a student is under our care, the value of preventive medical science. Our responsibility is not only to prevent illness by good teaching and personal conferences and to care for the sick in our community, but to present to the students medical practice at its best so that they may acquire while at college a knowledge of the value of medical advice to themselves, their families and their communities, that they may continue to keep fit under the supervision of their family physicians when they have left the College. Our present methods of diagnosis and treatment leave much still to be discovered and applied, but our scientific knowledge is greatly in advance of the health comforts and experiences of the average citizen, because he has not yet learned that to reap the benefits of the most recent developments in scientific medicine, he must seek them at the hands of a well-trained and public-spirited physician. Health is not to be acquired by reading books, attending lectures and receiving personal advice from a physician only, but by using the knowledge thus gained in better and wiser living. We cannot do for our students in a medical way any more than in an educational way a piece of work to last for a lifetime. but we can and should lay a foundation upon which they can learn to build both a more satisfying educational and a sounder physical structure.

The natural development and expansion of the health service is crowding our present quarters so that in the near future the lack of space will greatly handicap our usefulness. We hope that our plea for a building adequate to care for our medical service in all of its departments will stimulate someone to give us the necessary endowment to erect, furnish and maintain such a building.

As in former reports, we wish to acknowledge our debt to the members of the staff of St. Luke's Hospital for their valuable coöperation and especially for their willingness at all times to care for our students who need hospital treatment. Their spirit is always one of helpfulness and we have come to regard them as a part of our organization. Our staff wishes to share with Dr. Clover and his co-workers any satisfaction that it enjoys because of the success of the past year's work. We wish also to express appreciation to the members of the staff at the Medical Center who have so willingly and effectively assisted us in our many problems. We would mention especially Dr. Palmer, Dr. Meleney, Dr. Tilney, Dr. Golden, Dr. McCurdy and Mr. Bush.

Respectfully submitted,

WILLIAM H. McCastline, University Medical Officer

June 30, 1929

ADDENDUM

CONDITIONS TREATED

October 1928—May 1929 (inclusive) University Office

Diseases of the Bones and Organs of Locomotion:	
Arthritis	
Bursitis	. I 2
Callus (on foot)	
Coccygodynia	. 3
Concussion of brain	. 2
Contusions and abrasions	. 210
Dislocations	. 16
Foreign bodies (soft tissues of extremities)	. 24
Fractures	. 32
Ganglion	. 6
Hallux valgus	. 7
Lacerations	. 141
Metatarsalgia	. 23
Periostitis	. 3
Puncture wounds	. 5
Sprains	. 239
Synovitis	
Tenosynovitis	. 8
Traumatisms	. 52
Diseases of the Blood and Ductless Glands:	
Anemia (secondary)	. 36
Dysfunction of thyroid	. 87
Exophthalmic goiter	. 3
Leukemia	. I
Diseases of the Circulatory System:	
Cardiac diseases	. 41
e.g. endocarditis, myocarditis, etc.	
Cardiac neurosis	. 16
e.g. tachycardia, arrhythmia, etc.	
Hemorrhoids	. 29
Hypertension	. 26
Hypotension	. 30
Phlebitis	. 4
Thrombosis	. 3
Varicocele	. 3
Varicose veins	. 10
Diseases of the Digestive System:	
Appendicitis	. 57
Ascaris lumbricoides	

	Carcinoma of the stomach											4
	Cholecystitis											1
	Constipation											60
	Duodenal diverticulum .											1
	Duodenal ulcer											9
	Gastric neurosis											I
	Gastric ulcer											
	Gastroenteritis											365
	Gastroenteroptosis											24
	Gingivitis											20
	Jaundice (catarrhal)											10
	Peritonsillar abscess											2
	Pharyngitis (acute and chro	on	ic))								1,205
	Stomatitis											66
	Toenia solium											1
	Tonsillitis											15
	Vincent's angina											I
D	iseases of the Ear:											
	Cerumen											147
	Deafness (nerve)											2
	Fungus growth in canal .											1
	Hematoma											4
	Mastoiditis acute											1
	Otitis media acute											88
	Otitis media chronic											12
	Ruptured tympanum											8
D	iseases of the Eye and Anne											
	Blepharitis											14
	Cataract											3
	Chalazion											25
	Conjunctival hemorrhage											e
	Conjunctivitis (all forms)											120
	Detached retina											2
	Foreign body											217
	Hordeolum											22
	Iritis											ç
	Refractive error (corrected))										195
	Tuberculosis (iritis)											1
	Ulcer cornea											2
D	iseases of the Metabolism:											
	Diabetes											2
	Gout											2
D	iseases of the Nervous Syste	en	n:									
	Angioneurotic edema											ç
	Epilepsy											2
	Neuralgia											20

UNIVERSITY MEDICAL OFFICER	393
Neurasthenia	317
Neuritis (all forms)	36
Neurosis	16
Paralysis	6
Psychoneurosis	18
Diseases of the Respiratory System:	
Adenoids	3
Asthma	6
Bronchitis	319
Empyema	I
Epistaxis	22
Hay fever	4
Laryngitis	101
Pleurisy	13
Post-operative hemorrhage (nasal)	5
	1,152
Sinusitis	238
Diseases of the Skin and Cellular Tissue:	230
Abscess	219
Acne	67
Alopecia areata	7
Blebs	30
Burns (chemical)	52
Bromidrosis	52
	154
Cellulitis	62
Clavus	
Dermatitis	52
Dermatitis venenata	27
Eczema	68
Epidermaphytosis	80
Epithelioma	I
Erethyma	4
Furuncles	316
Herpes Simplex	17
Herpes Zoster	19
Impetigo	58
Ingrowing nails	7
Keloid	I
Lichen Planus	3
Papilloma	38
Pediculosis	3
Pompholyx	16
Pruritis ani	8
Psoriasis	3
Scabies	16
Sebaceous cyst	37

Seborrhea (all forms) .										61
Sting of insects										17
Trichophytosis										42
Diseases of the Urinary Sy										•
Cystitis										15
Hydrocele										2
Nephrolithiasis										9
Nephritis										18
Prostatitis										11
Pyelitis										4
Urethritis (non-specific)										9
Gynecological Diseases:										
Amenorrhea										6
Dysmenorrhea										26
Endometritis										2
Fibroid uterus										4
Leucorrhea										7
Menopause										22
Menorrhagia										10
Ovarian insufficiency .										10
Pregnancy										8
Retroversion of uterus										5
Infectious Diseases:										
Anterior poliomyelitis										3
Chickenpox										I
Diphtheria										I
Encephalitis lethargica										I
Focal infection (teeth)										29
Grippe (respiratory) .										480
Malaria										4
Myositis										273
Pulmonary tuberculosis										12
Pyorrhea										4
Undulant fever										I
Whooping cough										I
Miscellaneous:										
Adenitis										30
Alcoholism										3
Anaphylaxis										2
Benign tumors										18
Dog and cat bites										6
Hernia										25
Lymphangitis										2
Malnutrition										16
Obesity										12
-										8,031

INSTITUTE OF CANCER RESEARCH

ENDOWED BY GEORGE CROCKER

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the sixteenth annual report of the Institute of Cancer Research.

While interest in cancer, both from the public standpoint and the research aspect, has continued to increase, as indicated in last year's report, there has been no outstanding contribution to the subject during the year. Unfortunately the widespread interest in cancer among the laity and the demand for quick returns so stimulated have led to the publication of a considerable amount of hasty work by untrained observers. This has only clouded the issue. The work of refuting such immature research is a most thankless task and only diverts the trained experimenter from his main problem, the painstaking investigation of the biology of the cancer cell. Until a much larger amount of such information is accumulated, the direct attack on the problem of a cure is a mere waste of time.

The Institute continues to furnish animals grafted with tumors to many other laboratories throughout the country, a list of which is appended.

Professor Wood and Dr. Krehbiel have been studying the distribution of colloidal substances, especially lead, in the organs of mice and rats bearing tumors, and have worked out a technic which enables them to detect and estimate the small quantities which are to be found in various sites after intravenous inoculations of a few milligrams of the substance. They have also been studying the necrotizing effects of certain chemicals and mixtures when injected into transplanted tumors in animals in order to obtain, if possible, some explanation of the mechanism of the action.

Professor Woglom, in collaboration with Dr. Herly, has finished some work on the carcinogenic effect of tar applied to the skin of mice in various dilutions, and the results are to be published shortly. Professor Woglom has completed an investigation of the effects of inoculation of the spleen of tumor-bearing animals. It has been reported that such inoculation was quite regularly followed by the appearance of a tumor, though the microscopic examination of such spleens revealed no particles of the neoplasm. No such positive result was observed with the tumor strains available at the Crocker Institute, though large numbers of inoculations were made. The question is one of considerable importance, for if it were possible to substantiate the assertion of the German investigators, our whole conception of malignant disease, gained at the cost of much patient clinical observation and years of laboratory experiments, would have to be discarded or at least radically altered. The divergent results between the work done in America and that in Germany await explanation, but at least they show the danger of generalization from a few experiments.

Some progress has been made with the problem of tumor immunity which has been under investigation by Professor Woglom for about four years, but the complexity of the matter is so great, and there are so many variations in the results obtained, that progress is necessarily slow.

Dr. F. D. Bullock and Dr. M. R. Curtis are continuing their experiments with Cysticercus disease of the rat and its frequent complication, Cysticercus sarcoma of the rat liver. They have recently reported a mixed carcinoma and an osteochondrosarcoma of the rat's liver of Cysticercus origin, which co-existed with two probably independent polymorphous cell Cysticercus sarcomata of the same lobe of the liver. This tumor was the only carcinoma which has been encountered in over 2,300 Cysticercus tumors of the liver, and it and two adenomata originating in isolated bile ducts in the walls of Cysticercus cysts were the only epithelial growths which have been found associated with the parasite.

A morphological study of over 500 neoplasms which arose

in different parts of the body of rats, independent of the direct stimulation of the parasite, has been completed and awaits publication.

In observations on the digestion of the shells of the eggs of *Taenia crassicolla* these investigators have found that the onchospheres are freed of their shells in the small intestine after the eggs have passed through the stomach in an intact and apparently unaltered state. Digestion experiments *in vitro* have shown marked variations in the digestibility of the shells of different eggs from the feces of the same cat and of different cats, and proved that the shells which were most resistant to the digestive fluids surrounded the most active, viable larvae.

Experimental feeding of Taenia larvae shows that the parasite passes the stomach of the cat or the rat from 30 to 60 minutes after feeding, leaving behind the partly digested food fed at the same time. The larva attaches itself to the wall of the cat's intestine in 18 to 24 hours. In the rat's intestine, on the contrary, the shell of the parasite showed evidence of digestion after four or five hours and with one exception had completely disappeared in twenty-four hours. In this one case the larva was found attached to the wall of the rat's jejunum twenty-four hours after feeding. The rapid digestion of the larvae by the rat's digestive fluid may explain why rats, although frequently exposed to the same mode of infestation as cats, never contract the intestinal stage of the disease.

A statistical study of the genetic factors concerned in the etiology of spontaneous tumors and experimentally induced Cysticercus sarcoma is in progress. The study at this point indicates marked differences in susceptibility of different strains of rats and even families within a strain to both types of tumors and to transplanted tumors.

During the past year Dr. Packard has worked on three problems involving the biological measurement of X-ray effects. In the first ("Relation of Wave Length to Death Rate," Journal of Cancer Research, xiii, 87, 1929) the chief point to determine was whether the course of the survival curve

of radiated Drosophila eggs is the same, regardless of the wave length employed. He had already shown that it is the same when hard and soft X-rays, and the gamma rays from radium, are used. In the present investigation he used gamma rays from radium, and the super-soft Grenz rays which are about 80 times the wave length of the gamma rays. The results of the experiments show that the course of the survival curve is not changed when the wave length of the radiation is changed. This allows a direct comparison to be made between the intensity of the X-rays, which can be measured, and that of gamma rays, which have not yet been measured in terms of X-ray units.

The second problem considered by Dr. Packard was to test the effectiveness of a commercial ionization chamber, using the death rate of Drosophila eggs as a standard. These eggs are very consistent in their reaction to radiation. A dose of a definite number of Roentgen units, measured by an open ionization chamber, always kills a definite proportion of eggs. Therefore, if a certain proportion is killed by a dose of unknown intensity, its intensity can be accurately determined if the time of exposure is known. The test consisted in exposing eggs to doses measured by the commercial dosimeter, and comparing the death rate obtained with the expected result. Repeated tests showed that between 100 and 200 KV (the range for which the ionization chamber was constructed) the instrument was very accurate. With lower voltages it failed to register the real intensity.

The third problem considered by Dr. Packard has to do with the biological measurement of scattered radiation. The intensity of these rays can be found by placing Drosophila eggs on the scattering medium and comparing their death rate with that obtained in eggs suspended in air without scatter. The amount of scatter from a large field is found to increase as the wave length decreased, a fact already determined by ionization measurements.

Dr. Prime has completed a study to determine whether repeated exposures of X-rays produce morphological or biological changes in certain transplanted tumors. No such

change could be found. He has also prepared a paper on the method of transplanting animal tumors, a resumé of the biology of the tumors which are now cultivated at the Institute and certain other technical procedures as a guide to those who are beginning cancer research with material supplied by this Institute. The tables furnish the records of the transplantation of such tumors as carried on in this laboratory over a period of fifteen years and should be a valuable source of information to every worker in the field as showing the biological qualities of each type of transplanted tumor.

Dr. Heiman has continued his studies on the biology of the benign fibroadenomata in the rat's breast. The work is necessarily slow because the grafted tumors often require months before they make their appearance in the animals. Work on the interesting experiment of the segregation of two types of tumors, fibrous and adenomatous forms, is being continued, and the alterations in morphology and growth rate when the tumor is inoculated into male rats deprived of their gonads are being studied.

A paper on heterologous tumor transplants from mice to splenectomized rats has been finished by Dr. Heiman and will be published shortly. It shows that recent statements that splenectomy permitted prolonged development of heterologous transplants are not true, the removal of the spleen causing no change in the growth or character of the tumors. This paper will, it is hoped, put a final quietus on the recurring statements, based on the use in a few animals, that the spleen of normal animals has a protective effect.

Professor Boris Sokoloff, as a foreign guest in the Institute, has been carrying along certain experimental studies of various chemical agents which might affect grafted tumors when these substances are placed in intimate contact with the tissue. These results are not yet ready for final publication, but it is evident from the work so far accomplished that the method possesses no applicability to human cancer. He has also been carrying on studies on the electrodialysis of tumor substances, but the work is still in a preliminary stage.

During the last year Professor Wood and Professor Woglom

delivered a number of addresses before medical societies or similar gatherings. Among the extramural activities, Professor Wood has acted as Vice-President of the American Society for the Control of Cancer and a member of the Council on Physical Therapy of the American Medical Association. Professor Wood also attended the International Conference on Cancer held in London in July, 1928, as the official delegate for Columbia University and for the American Society for the Control of Cancer. Professor Woglom continues as Secretary and Treasurer of the American Association for Cancer Research.

Professor Woglom gave a course in the morphology of tumors at the Institute during the Summer Session.

The Institute has supplied during the past year, for experimental purposes, examples of standard transplantable tumors of rats and mice to various laboratories and hospitals, among them the following:

Carnegie Institute of Washington, Baltimore; Cleveland Clinic Hospital, Cleveland; College of Physicians and Surgeons, New York; Hahnemann Medical College and Hospital, Philadelphia; Harvard Medical School; Johns Hopkins University; Long Island College Hospital, Brooklyn; Montefiore New York: Hospital, Sinai Hospital, New York; New York Skin and Cancer Hospital, New York; New York University, Department of Biology, New York; Physiatric Institute, Morristown, New Jersey; Rockefeller Institute

for Medical Research, New York; State Institute for the Study of Malignant Disease, Buffalo: University of Cincinnati, Basic Research Science Laboratory; University of Montreal, Montreal; University of Nebraska, College of Medicine, Omaha; University of Pennsylvania, Cancer Research Laboratory, Philadelphia; United States Public Health Service, Washington, D. C.; United Israel Zion Hospital, Brooklyn; Santa Barbara Hospital, Santa Barbara; Dr. J. N. Frost, Elmira, and Dr. Hyman Millman, Bronx.

PUBLICATIONS

A list of the most important publications of the members of the laboratory staff during the year follows:

"The Relation of Wave Length to the Death Rate of Drosophila Eggs." Charles Packard. *Journal of Cancer Research*, 1929, xiii (March), 87. "Immunity to Transplantable Tumors. A Review." William H. Woglom. *Cancer Review*, 1929 (March), 129.

- "A Cysticercus Carcino-Osteochondro-Sarcoma of the Rat Liver with Multiple Cysticercus Sarcomata." F. D. Bullock and M. R. Curtis. *Journal of Cancer Research*, 1928, xii (December), 326.
- "Radium and Roentgen-Ray Therapy." Francis Carter Wood. Journal of the American Medical Association, 1929, xcii (March 9), 802, and (March 16), 894.
- "Cancer Biology and Radiation." Francis Carter Wood. Radiology, 1928, xi (November), 388.
- "Common Omissions in Treatment of Cancer Statistics." Francis Carter Wood. Report of the International Conference on Cancer, London, 1928, p. 189; "The Effects of Lead on Transplanted Tumors," ibid., p. 204; "The Vascular Changes Produced by Radium and X-Rays," ibid., p. 455.
- "X-Ray and Radium in the Problem of Old Age." Francis Carter Wood. Bulletin of the New York Academy of Medicine, October, 1928.
- Chapter on cancer. Francis Carter Wood. Americana Annual.
- Abstract on cancer. Francis Carter Wood, abstract editor on cancer for Nelson's Loose-Leaf Living Medicine.
- Chapter on tumors. Francis Carter Wood. Nelson's Loose-Leaf Living Surgery.
- Journal of Cancer Research. Francis Carter Wood, editor.

The Journal of Cancer Research, which is published by the Institute of Cancer Research of Columbia University, has appeared regularly, its present volume being numbered xiii.

Respectfully submitted,

FRANCIS CARTER WOOD,

Director

June 30, 1929

REPORT OF THE LIBRARIAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit the following report for the year ending June 30, 1929.

Perhaps the outstanding feature of the work of this year has been the receipt of some special gifts. Each year the University Library expresses its gratitude to those who have sent it gifts, but this year there have been four or five individual cases where the personal interest of the donor has stood forth.

Professor Brander Matthews sent to the University early in the year his special collection of volumes dedicated to him, and his set of his own writings. He had, in many cases, bound up in the volumes autograph letters concerning the book, and this series of volumes testifies to a man who possessed a very real gift of friendship. In the volumes thus sent to us were 232 letters, and record has been made of them. Professor Matthews always was a generous giver to the Library, as a glance through the files of the reports shows. He has bequeathed his library and his correspondence to the University. There are few literary names of this time that are not represented in his correspondence, and students of American life and letters will find much of importance in the files. One can but hope that they find there some reflections of Brander Matthews' own friendly and interested personality.

Another gift came from Mrs. Humphrey-Johnstone, and it consisted of a collection of autograph letters written to her sister, Emma Lazarus. There are among them a series of letters from Emerson, and letters from Robert Browning, James Russell Lowell, William Morris, and others. Mrs. Johnstone, in making this gift to the University, states that these letters were left by Emma Lazarus to her sisters with

the request that the last surviving sister present them to some public library for preservation. In presenting them to the Library of Columbia University, Mrs. Johnstone believes that she fulfills this wish in the most appropriate manner and in a way which accords with her own feelings. A volume is being prepared to hold these letters, and every care will be taken to justify Mrs. Johnstone's faith in us.

Two more members of the Class of 1886 of Columbia College have added to the collections in the University Library. In previous years the classical library of Professor Mortimer Lamson Earle of this Class came to us, and Edward William Scudder Johnston's name is represented by an endowment for the reading room of the College. This year Miss Adelaide Reckford gave in memory of her father, Louis Joseph Reckford, the sum of \$2500, the income of which will be used for the purchase of books in the field of economic and industrial geography in the School of Business. Mr. William A. Meikleham, also of the Class of 1886, was instrumental in suggesting to Miss Reckford this memorial to her father. This gift has, of course, its special bookplate.

Other gifts and bequests that have been received during the year were the libraries of Professor R. M. Raymond and Dr. Talcott Williams. Professor Raymond left to the Egleston Library a general collection of works on mining, especially accountancy as regards mines, and mines and mining in Mexico. The library of Dr. Talcott Williams, first Director of the School of Journalism, represented a collection gathered over a long lifetime by a man with very wide interests. A special gift of money from Mr. Blair Williams enabled us to purchase a complete file of "L' action française" from 1908 to 1927, and the important German series "Bilderschmuck der Frühdrucke." From the Sutliff Fund, given by the students of the School of Library Service, five examples of privately printed books were purchased at an auction of a collector in Germany. This made a satisfactory beginning for the use of a fund established and continued to do honor to one whose quiet, steady influence as teacher and as guide has impressed itself through a score of years.

Librarians have always had a close regard for those who sell books; sometimes it has been a regard tempered with suspicion, and sometimes a regard tempered with snobbishness. It is to be feared that this snobbishness has not always been the snobbishness that is the duty of the thoroughly graduated. But after all, this new doctrine is only Quod aliis licet, non tibi, somewhat amplified with modern technical details. Anything that concerns the circulation or the production of books directly concerns libraries. There have been two developments in the trade of publishing that might be noticed in any librarian's report of this year without irrelevancy. One of these is the discovery by publishers that publishers have Lives. Authors have always had Lives, and the profession of author is a much later profession than the profession of publisher. The writing of books has only in comparatively recent times been more than a second string to a bow that was already sufficiently well strung financially, and it has preserved the amateur spirit almost unto an anach-Perhaps this has helped the interest in their Lives. This year has seen the biographies of several of the larger publishers, and they have assuredly justified their publication.

The second of these developments has been the open criticism of the very successful book clubs. In this criticism jealousy and prejudice have played a large part, and some statements, which hardly can be justified, have been made on both sides. The book clubs have very certainly assisted in the broader circulation of some excellent books at prices that were lower than they would have been, if there had been no such thing as book clubs. The members of the book clubs have profited in purse and they have not, in the best-known book club, sacrificed in reality any independence of judgment. There is actually no accession of power to an "abject and herpetic Public Opinion" to be feared in the growth of these clubs.

These clubs are, like so many products of today, better and wiser than their advertisements. One thing continually stressed in the advertisements of one of the clubs is the selling points: (1) that you get the book of the month at once; (2) that you become an "insider" in constant touch with the latest and best. The emphasis placed on the first point tends to be misleading. The book of the month is not, and cannot be, the book of the month in any such sense as today's paper is the paper of today. Today's paper was not yesterday, and will not be tomorrow, and with this the production and life of any book of the month is in entire contrast. It has taken months of care and preparation on the part of the printer, and years of thoughtful writing and rewriting on the part of the author. And no one is declassed who reads the book of the month three months, or three years, after it has been issued. It is not a Saturday Evening Post that appears with mysterious unity of time on Thursdays in cities days apart even by airplane.

The second appeal, to be an "insider," is insincere and demagogic in the worst sense. It is really based on the desire to join the Experts. The antonym of expert is layman, and it is not without interest to trace the gradual dropping of the non-cleric meaning of layman and laity. In the Oxford dictionary, an example is given of non-lawyer in 1832, of non-artist in 1875, and of non-medical in 1878. In a May number of a well-edited weekly is a very changed usage. The opinion of "any church official" is regarded as that of a "layman"; it has recently been suggested editorially that "juries in criminal cases should be composed not of laymen but of psychologists." These are usages very different from any original usage, but the growth and development of Experts have obviously necessitated some distinct nomenclature for the unfortunate non-expert. "Layman" is convenient and probably serves excellently.

One most promising part of the Library of the University is the Paterno collection in the Casa Italiana. The number of New York inhabitants who are of Italian origin, roughly corresponds to the combined populations of Florence and Venice, and it is entirely appropriate that in New York there should be started a library on modern Italy on a scale deliberately beyond that of a reading room or a circulating library.

We keep, and will continue to keep, in the University Library the standard works on the Rome of the Caesars, and the Florence of Dante. The main plan of the Paterno Library is to collect the history and literature of Italy since 1870. It should be, for Italian residents, a source of pride in the achievements of their fathers, and their grandfathers, and not an ancestral museum of events, far distant both in time and in place. It is hoped to cover Italian local history somewhat fully, for there is certainly a place here for the fostering of the amour du clocher, that instinctive affection that explains so much of life in Latin countries. This affection hardly survives Ellis Island, and from the nature of things it can have no equivalent in modern life in modern America. Special provision is to be made to help those who are studying modern Italy from its political aspects; the present situation presents particular interest, and there is no reason to believe that the political activities of this period will be without their unsettled problems when the history of the time comes to be written thirty or forty years from now. The unraveling of cause from symptom will require much study of many books and pamphlets.

There is no library in the country, so far as I know, that has set this task before itself in any adequate fashion, and it is a matter of sincere congratulation that Dr. Charles V. Paterno has seen this opportunity, and has taken this responsibility upon himself. His name has been intimately connected with the growth of the section of New York City around the University, but I am venturing to prophesy that the linking of his name to this library will outlast his buildings. He is building a city of which generation after generation of students will form an ever young and ever vigorous citizenry, and his name will stand high among those who have aided Italian studies throughout the country. Dr. Paterno has promised to make permanent provision for the maintenance of this collection, and thus each year will see new works and new authors. Full information as to courses of study in Italian universities will be available, and the statistical annuals will keep the Library up to date as to economic facts. This is a serious program, and it is being taken up seriously.

The death of Dr. Arrowsmith, Curator of Columbiana, did not pass unnoticed by the students of Columbia, and the Columbian of 1929 was dedicated to the memory of Robert Arrowsmith ". . . in the hope that it may prove worthy of the Columbiana he always cherished!" The work that he started is being systematically continued along the same general lines. The accumulations are filed and in order, and it is now possible to locate material quickly and assuredly. A vertical file has been installed, and in it thousands of photographs and clippings have been filed by name or subject. A great deal of time and effort has been spent this year in securing identification for photographs. This is particularly necessary in the cases of the early class photographs. A card index has been made of the individual pictures in the class albums, and we can tell at once whether we possess a photograph of any graduate.

Columbiana, as a department of this University Library, should cooperate with alumni organizations and with individual alumni; its foremost function, however, is to be a repository of University archives, with a serious purpose of collecting or recording everything possible relating to the University's history. Not every university can be as fortunate as Harvard and Yale were in having such scholarly enthusiasts as John Langdon Sibley and Franklin Bowditch Dexter, each of whom devoted his lifetime to the history of his Alma Mater. Yet through the years, the succession of Curators of Columbiana should fulfill this function, each rendering the service his tastes and abilities best fit him to render. The present quarters of Columbiana are inconvenient in their lack of space; when there is available some adequate room, perhaps by the provision of an Alumni Hall, the material already collected can be more worthily displayed.

At the conclusion of each year's work, a general survey of things, for possible improvement of library management and administration, is inevitable. One finds with delight that much that was planned has actually been effected; with chagrin, that much that was planned still remains to be done; with disappointment, that a considerable proportion of what

was planned turned out to be impracticable. In a library, the possibilities of improvement are conditioned very largely by the facts of the building, and by the relation of the main library building to other buildings. In our case at Columbia this question of physical relationship of buildings must now be regarded from a new aspect, for the advent of the School of Library Service, which has already so much of definite achievement to its name, has changed the problem very materially. If the work of the Library School is to progress without impediment, it should be linked closely to the University Library. It can, I think, be stated that there has been nothing to interfere as to mental and moral harmony between the members of the School of Library Service and the staff of the Library. Physically, however, there have been difficulties, and these have been met with mutual adjustment. These physical difficulties could not have been foreseen when the present library building was erected; a library school on the broad lines that have been laid down for the School for Library Service, with a program that would attract large numbers of graduate students from all over the country was well beyond the region of practical vision.

There have also been developments in the actual use of the Library of the University that have brought about important changes of circumstance. Of these the most important has been the growth of departmental libraries. There were many reasons for this, and reasons that differed from department to department. It was found, for example, that chemical, botanical, and biological libraries must be in close contact with the laboratories if they were to render full service to readers. In history and English, the number of students made large reserve collections essential, if the time of the students was to be considered, since there are physical limitations to the number of those who can be served over a single loan desk, as there are to the use of a single catalogue. It should be stated, of course, that if these large reserve collections could be brought under the same roof with the main collection, it would be a measure of centralization that would be generally helpful.

The doctrine of library centralization is a ready theoretical remedy for many library failings. But if it were applied rigorously, new and greater defects would be created, and as a matter of fact any real centralization, except that of administration, for us is impossible. The law, Avery, journalism, business, and College Study libraries, not to mention the medical, educational, and Barnard libraries, make a large degree of decentralization a fixed fact. We are no longer proceeding on a policy of haphazard decentralization; our department libraries have competent custodians and regular checks are made of their content. There has been a constant attempt towards combination and consolidation of department libraries; it is obviously possible to provide better service over longer hours when such combinations had been arranged. We are well away from the original effort to supply the need for a department library by keeping a shelf of books in a professor's office for the convenience of his students.

These department libraries do not, if properly controlled, interfere with the work of the main University Library; rather, it has made it feasible to specialize the service of books on the campus.

The Low Library is a magnificent and inspiring building; it is entirely worthy of Columbia and it represents the memory of Columbia for thousands of visitors. It is the University Library, and it should stay in fact the University Library. In internal arrangement the building has always had definite imperfections, and imperfections that admit of no remedy. The seminar rooms are excellent for their purpose, but it is impossible to avoid long delays in book service over the loan desk. At the present time the necessity for the provision of additional stack space brings recognition of the further fact that we have reached the stack capacity of the building. This is a statement that carries its own urgency with it, and the obvious method for relief would bring no real relief at all. To erect a second library building would be merely to double the complications. Our main Library is a whole, and it is not feasible to divide it into half by drawing a line horizontally or perpendicularly through a list of subjects. In the second place, if such a division could be made, it would necessitate a second catalogue, and a second reference collection and reference staff. A second catalogue would cost well over half a million of dollars, and it would probably carry a sense of uncertainty in the reader's mind as to which of the two catalogues was fully and absolutely authoritative.

This summary of the conditions of the Columbia Library, as at present constituted, shows the major part of the problem before the University. It seems to me that an answer that is complete and entirely satisfying can be found in the plans that Dr. Williamson has in process of formation for the welding of the Library and of University Hall into a single building. There is no wanton interference with the architectural dignity of the Library, and the plan does not scrap the Low Library as the University Library. There is excellent provision for storage until the distant future; there will be no service impediments; there is no attempt at centralization as a fetish, but all the centralization advisable is made possible, and lastly, it brings the Library School in to the Library building sufficiently for all purposes, and yet not insistently. There will be no predominance and no provocation for selfassertion. The plan demands the expenditure of a large sum of money, and yet there is no extravagance in any part of it. It would give the University a building of which every detail had been tested against actual experience at Columbia. There is no such thing as a library, ideal for every and any University, for if proper regard is not had unto local conditions, after a few years the whole system will show cracks and weaknesses. The plans under discussion have the security that belongs to all things that are well and firmly founded.

It is encouraging to be able to report a very real improvement in the response by professors and students to notices sent out by the loan desk. There is still, in many cases, an attitude of indifference, but most officers of the University do realize the absolute importance of coöperation with understanding. Errors of judgment and errors of fact will continue wherever there are libraries and library records; with help we can correct our ways, without it, the service at the loan desk

is seriously hampered. There are, without question, too many volumes kept year in and year out on shelves in offices, and some very real hardships have been caused by this.

Another encouraging feature is the decrease in the number of lost books; this is largely due to the control of access to the stacks, and the comparative figures are satisfactory. Of the books that figured on the 1927 list, 39 per cent have been returned through various sources. This proportion of loss is due entirely to carelessness or selfishness, on the part of some officers and graduate students, and the present system of stack control is preventing this particular loss. From September, 1928 to June 30, 1929, 1044 stack permits were issued to graduate students. A conservative figure for those who use the stack rooms regularly would come to a total of 475. About 4000 books are reserved on the tables at any one time during the school year throughout the building. These collections vary daily and need to be checked over frequently, so that the reserve file has developed into an integral part of the shelf work. A large number of visitors have been taken over the Library; in many cases they seem to expect to learn all about our methods in about thirty minutes, and it is to be doubted if these tabloid doses benefit them very much. It may, however, provide a tonic for their ambitions.

During the past year Columbia University, the University of Michigan, and Princeton University took part in the purchase of Greek papyri from dealers in Cairo. The documents which came upon the market were few. Out of these the Columbia Library was assigned twenty-three pieces, most of which are in fragmentary condition. The best pieces include two fragments containing the first ten to twelve letters of fifteen lines from Book V of the *Iliad* and one fragment containing parts of twenty-four lines of Book XVII of the *Odyssey*. The latter piece comes from an edition written in the second century of the Christian Era. A contract of sale of a slave girl, dated in the principate of Antoninus Pius, 140 A. D. has the last fourteen lines completely preserved. This contract is canceled by a single long cross stroke (X) over the body of the document.

Professor Clinton W. Keyes has continued his work, in collaboration with Professor Westermann, on the ten "Theadelphia rolls" in the collection, which contain records of the government treasury officials at Theadelphia. He has prepared for publication all the papyrus fragments of extant Greek literature at Columbia; these are to be published during 1929 in the American Journal of Philology. He has also used an unpublished Columbia papyrus in the emendation of the text, and the reinterpretation of a published papyrus in the collection at Berlin. The results of this study are to appear in a forthcoming number of the Journal of Egyptian Archaeology.

Professor Westermann completed his study of the important Columbia Papyrus Number 480. It is a royal ordinance of Ptolemy V of Egypt establishing the amount and incidence of the sale tax on slaves. It is not dated, but it falls within a three-year period preceding the honorary decree of the priests of Egypt which was published on the famous Rosetta stone, which fixes the date at about 200 B. C. The subject of the royal ordinance is unique among the recovered documents from antiquity, and brings a considerable amount of new information upon taxation methods, legal matters, and the economics of slavery in Egypt in the third and second centuries B. C. This document is appearing in book form under the title *Upon Slavery in Ptolemaic Egypt* as a publication of the Columbia University Press.

Miss Gaskill has achieved a considerable measure of success in rearranging the Chinese collection. She has had the assistance of Mr. Wen-San Wong, Mr. J. F. Liu, Mr. Chichen Wang, and Mr. G. S. Chow at different times. During the year the title catalogue has been entirely refiled according to the number of strokes, radicals, and sub-radicals of the characters. Much of the collection has had to be moved to get the books in order on the shelves and it has all been checked with the shelf list, and the shelf list checked with the title catalogue. A great accumulation of unclassified and uncatalogued material was found at the beginning of the year. Most of these books as well as the accessions of this year have

been classified and catalogued, excepting the new-style books (books translated from Western languages or written from the Eastern standpoint).

There have been added to the collection during the year a number of recent books on various subjects published chiefly by the Commercial Press and the Chung Hua Book Company, some valuable old works from the library of the late Professor A. Conrady, and some interesting material for the history of the Ch'ing dynasty purchased in Peking by Mr. C. H. Peake of the Department of Chinese.

The publication in March by Doubleday, Doran and Company of a translation and adaptation of the great Chinese novel, *Hung lou Meng*, made by Mr. Chi-chen Wang, should be noted.

An undertaking that aims further than the Chinese room is the establishment of a Japanese Culture Center in Room 414 in the Library building. This began towards the end of the year, on a tentative arrangement, and it is hoped that it may provide a meeting ground for all who are interested in Japanese-American relations. Mr. R. Tsunoda has organized the Center with keen personal devotion, and he is serving as Curator of the Japanese books in the Columbia Library. The libraries throughout the city will benefit through the development of this most promising movement.

The School of Library Service has been daily and nightly in and about the libraries. Many fundamental bibliographies have been called for, and the library students and instructors have again followed the wishes of the staff of the Library with scrupulous and most willing attention. This was particularly noticed in the use of the geology room, where, under the competent direction of their professors, large classes of students attended laboratory periods without noise or confusion. At the beginning of the winter term the north main corridor of the Library building was enclosed to make a special alcove for the Library School. The problem of providing adequate lighting in this spot for the reading of books for two or three hours at a time turned out to be beyond solution, and a shift was made in the periodical room to accommodate

these serious users of books where the light was better. Sets of bound periodicals were moved to occupy the shelves in the new alcove; facilities for quiet working together in this alcove have been found without disturbance to the reading room, since for some reason the acoustic properties of this particular space do not allow whispered conversations to be heard beyond its limits.

A seminar room has been provided for the Library School by the restacking of Room 422 with double steel stacks. This necessitated moving 30,000 volumes out of the room while the work was being done, and moving in some 50,000 to occupy the shelves when the work was done. The shelf department deserves credit for making the change without confusion or delay. The wooden shelving was transferred to the basement of the Law library where some additional space was made available for the arrangement of law duplicates. This enabled the Law library staff to make a muchneeded adjustment in their stacks, and altogether some 165,000 volumes were involved in this change.

In the College Study of Hamilton Hall a large increase in the use of books is to be noticed, although there was a decrease in the registration in Columbia College. It seems probable that the use of the College Study is more dependent upon methods of instruction than upon any change of number in the enrollment of the College. The need of the College Study for more space to carry on its work has been recognized, and, directly after the close of the present Summer Session, the premises of the College Study on the second floor of Hamilton Hall are to be increased by the acquisition of three recitation rooms on the south side of the building. These three rooms are to become one large room which is to house the reserved book collection and the offices of the College Study. Beside increasing the seating capacity of the College Study by 72 chairs, the plan provides for the lending and the return of books to take place in the wide corridor which separates the two reading rooms of the College Study, thereby assuring the reader of complete freedom from the noise of shuffling feet and conversation at the lending and return desks.

The applied science libraries in the coming year will be expanded by the addition of another special library, the engineering clipping library, presented to the Library by Professor Charles Edward Lucke of the Mechanical Engineering Department and housed in Rooms 525 and 527 of the Physics building. This library has been maintained by Professor Lucke for many years, and it will be coördinated with the engineering library both as to scope and as to classification. Professor Lucke has pledged his interest in its continuance, and it is a development that should bring aid to all students of engineering.

In the engineering library itself and in the engineering catalogue library all space has now been occupied. Periodical sets are stored on top of the shelves in the reading room, and there is no work space or storage space for material awaiting binding except the tables, which are needed for readers.

The accessions of engineering books was augmented this year by a gift of some five hundred bound and unbound volumes of state and government water power and water supply reports from Professor Robert T. Livingston of the Department of Mechanical Engineering. The files are in most cases not complete or up-to-date but the collection forms the nucleus of a valuable file of source material on hydroelectric power. It has been catalogued and the gaps are being filled in as quickly as possible.

As a result of research work done for Professor Finch in connection with the history of engineering he is writing many references on famous bridges, dams, highways and other engineering works have been collected. Such references are difficult to locate quickly, particularly if the year of completion of the particular bridge or tunnel is unknown, and it is planned to incorporate them into a card file for the use of readers and students. The references will be added to as time permits.

A great deal of time and work has been spent on the improvement of the classical reading room. In the first place the catalogue and the shelves were carefully compared and checked, thus alleviating the "books without cards," and the

"cards without books" difficulty. During the Christmas recess the shelving was changed and the shelf space increased considerably, making it possible for the entire collection to be shelved in the reading room without using the adjoining seminar room.

In connection with this work a large number of books missing over a period of several years were replaced. The Department made an addition to the book appropriation in order to make this possible without seriously impairing the purchase of new books. The classical reading room is in a greatly improved condition.

The Deutsches Haus, as reëstablished, has opened out some large possibilities as to a reading room for modern German publications. The Börsenverein of Leipsic has expressed its willingness to coöperate on a generous scale, and the arrangement seems now to depend on some adjustment as to detail. Some 2200 of our volumes were temporarily set on the shelves in the Haus for the opening ceremonies, and a Lessing exhibition was put together from our own collection as a bicentenary celebration. It was satisfactory to find that we possessed so large a representation.

An unusual amount of rebinding has been put through in the classification and recataloguing of the Avery Library. The original plan of emphasizing the historical styles of architecture, and then dividing by country has been followed as far as possible. The great mass of books on Greek, Roman, Medieval, and Renaissance styles have thus been transferred from a geographical group to an architectural. The preclassic, oriental, and a few distinct styles such as those left by the Moors in Spain, have not as yet been touched. Both students and patrons from the outside apparently find this arrangement an improvement. One result has been that fewer large reserve groups in alcoves have been necessary, for the students have learned to go directly to the shelves.

At times during the course of the year the reading room of the School of Business library has been filled to capacity and it became necessary to transfer students to industrial relations and the Scudder Library. It became evident that, should the enrollment in the School of Business show any material increase in the near future, the present reading room facilities would prove to be inadequate. A study was made of the possible expedients open to meet this need of provision of more space for readers.

An examination of the registration figures of the School of Business brings out clearly that, while the undergraduate enrollment has remained practically stationary, the number of graduate students has increased steadily to an aggregate of 67 per cent. This change, if it continues will undoubtedly call for a change in the service rendered by the assistant librarians and the loan desk attendants. Heretofore, they have been largely engaged in handing out textbooks called for by the student as assigned by the instructor. Each graduate student, however, is required to do some research work in writing his Master's essay or Doctor's dissertation, and in his search for material he usually appeals to the librarian for suggestions or information concerning data on his subject. Hence it takes much more of a librarian's time to serve the average graduate than to serve the undergraduate who reads what is assigned to him and little else.

In continuing the collection of firm and trade accounting systems 180 letters have been sent out and 44 systems have been given us. The replies have testified to much readiness of coöperation. Much has been added to the Montgomery Accounting Library; of these perhaps the 35 volumes of the Crooke business of Poughkeepsie (1715–1765) are notable. Mr. F. H. Lee has sent us from China 24 specimens of Chinese account books; we owe him deep gratitude for the interest and care he took in their selection.

The library of Seth Low Junior College, in Room 606, Brooklyn Law School, 373 Pearl Street, Brooklyn, New York, first opened its doors to readers on September 25, 1928. There were 382 students registered in Seth Low Junior College on that date. The library needs of the College are provided for in a large, light, well-ventilated room on the sixth floor of the new building of the Brooklyn Law School. The equipment provides seating capacity for 120 readers and shelving space for 4200 volumes.

An attempt to meet a strongly expressed wish of the students for open shelves failed as an experiment. In a few weeks more than half of the books exposed had been removed and it was clear that to set reserved books on open shelves would defeat the very purpose for which they had been assembled—continuous availability.

The law library had made a careful check-up for the United States and states of current compilations of the statutes and digests of reports. All the important editions found wanting were acquired, so that our Library now has a complete representation of the modern standard publications for United States and states laws and digests of reports.

The cataloguing of the Crispi collection has been completed, except for some 300 volumes on canon law. The cataloguing of these fifteenth to the eighteenth century books (1661 volumes) was an undertaking requiring not alone a good knowledge of Latin, but also an inexhaustible patience and exactness to unearth pertinent facts for proper entries. For use and guidance, want lists were prepared for Mexico and its states, and the Argentine Republic, as well as shorter lists showing our holdings on selected subjects, in particular in French and German law.

This year we were fortunate in adding nine editions of Blackstone's Commentaries and three editions of Coke's Institutes. With the purchase of Polnoe Sobranie Zakanov Rossiiskoi Imperii (Russian Imperial Laws), 1649–1913 in some 230 volumes; Russian Governing Senate Judicial Decisions 1866 to 1916; Civil Cassation Department decisions, 47 volumes; and Criminal Cassation Department decisions, 40 volumes, Columbia now has a complete set of the laws and decisions for the Imperial, Provisional and the present Soviet governments, being one of the very few libraries in America where a real group of Russian law may be found.

Two works of special interest in international law were added this year, namely: International Maritime Committee, *Bulletins*, volumes 12–85 (completing our set) and "My Diary at the Conference of Paris," 22 volumes by David Hunter Miller.

The medical library at the Medical Center has been through its first year, and the collections are now catalogued, shelved, and used as a unit. Adjustments have been made that the regulations may accord as much as possible with the needs and desires of readers, and the facilities afforded by the new arrangement seem to be generally satisfactory. Many long chemical sets have been added to the library, and continual reference has been made to them.

Dr. Henry and Dr. Charles Bödecker have presented the dental library of their father, Dr. Carl F. W. Bödecker, to the School of Dental and Oral Surgery. The interest that Dr. Carl Bödecker had in Columbia University was shown by his attempt to found a dental school in connection with Columbia University in the early nineties, when he, as chairman of a committee of prominent New York dentists, interviewed President Seth Low. The time, however, was not then considered ripe for the consummation of the hopes of the committee to have dentistry taught in Columbia University.

The important work of locating copies of books reported not available in New York, which are needed for research work, has been carried on and extended by Miss Winchell. The number of such requests handled this year shows an increase of nearly 20 per cent over last year's number. In view of the grant for the increase of the Union Catalogue at the Library of Congress and the great extension of that catalogue that is to take place in the near future, it is interesting to note that only four of the 56 titles sent to the Library of Congress Union Catalogue for investigation were located through that catalogue, while 69 out of 151 were located through letters to other libraries. When the plans for expanding the Library of Congress Union Catalogue have been carried out, we shall probably derive much more benefit from that record.

As usual the list of Masters' Essays and the University Bibliography were published as Library publications. In the issue of the Bibliography for 1928, patents were included for the first time, and five entries under this heading were reported.

The statistical figures for the work of the year show a few decreases, but in the main there is obvious a steady tendency towards fuller usefulness. By the system of inter-library loans, 1081 volumes were lent to 127 libraries, and 337 volumes were borrowed from 40 libraries; besides this, 195 volumes were borrowed by us from scientific libraries in the city, of which number the American Museum of Natural History lent us 141.

In the bindery, leaves were cut in 9971 volumes; book pockets were affixed in the back of 56,117 volumes; bookplates were affixed in front covers of 47,103 volumes and new book cards were made for 1016 volumes. The income from fines for lost books and belated returns amounted to \$2,343.26, and photostat work brought in \$1,625.49.

There were eight showings of different issues of the Yale University films.

The exhibitions in Avery Library during the year were as follows:

July. The Perkins-Boring Fellowship Competition continued from the previous month.

August. Etchings and lithographs of New York City.

Photographs of the Columbia University buildings (Avery collection).

September. The Frederick Keppel Memorial collection of etchings (Avery October. collection).

November "Portrait studies," crayon and water color work by Professor A. J. Barnouw of Columbia University.

Illuminated manuscripts and rare books from Columbia University General Library.

December. Greek sketches in water color by Professor Ralph Fanning,
Ohio State University.

Rare books and manuscripts on scientific subjects. Portraits of scientists loaned by Mr. George Plimpton and Professor David Eugene Smith, Professor of Mathematics of Columbia University. This exhibition was held in connection with the meeting of the American Association for the Advancement of Science.

January. Scientific exhibition of previous month continued.

February. Exhibit of the work of the School of Architecture, Columbia University.

Plates in color of a Russian icon from the book of N. P. Kondakov.

Plates from Monumenta scenica (Monuments of the Theatre).

March.	February exhibit of plates continued. Traveling exhibition of Association of Collegiate Schools of Architecture.
	Facsimile reproductions of Chinese woodcuts of the seven- teenth century.
	Work of Columbia-Yale-Princeton competition—"A municipal courthouse."
A pril.	Exhibition of the work of the Home Study course, Columbia University. The Anson K. Cross "new vision method" of teaching art.
	Chinese woodcut exhibition continued.
	Reproductions of drawings of airplanes in color by F. Lemon.
May.	Students' work from American Academy. (May only.)
June.	Colored plates on Chinese embroideries.
	Plates on modern sculpture.
	Airplane exhibit continued.
	Thesis work of students in School of Architecture—McKim Fellowship competition, Carl Troedsen, winner.

The record of gifts to the University Library is again gratefully set down. Sums of money were given for specific purposes by:

00.00
164.71
00.00
00.00
00.00
250.00
175.00
325.00
00.00
200.00
100.00
00.00
150.00
00.00

From officers of the University we have received the following gifts:

President Nicholas	Murray	William A. Boring
Butler	1047	Wendell T. Bush 192
Charles S. Baldwin	21	Gary N. Calkins 52
Adrian J. Barnouw	I	Dr. Charles N. B. Camac
Charles P. Berkey	I	Gift of a framed portrait
Franz Boas	67	William Campbell 9

Robert E. Chaddock	2	Daniel G. Mason	3
Dr. Cornelius G. Coakley .	284	Brander Matthews	
Roy J. Colony	64	Gift of 262 books, written	
John J. Coss	11	by, dedicated to, or pre-	
John W. Cunliffe	3	sentation copies, full of	
Dr. William Darrach	21	original letters concern-	
John Dewey	2	ing his books. Many are	
Edward M. Earle	26	beautifully and specially	
Irwin Edman	I	bound.	
James C. Egbert	17	Frederick C. Mills	2
Dr. Haven Emerson	47	William P. Montague	I
Mrs. Hubert Evans	81	Douglas Moore	I
Frank D. Fackenthal	I	John Bassett Moore	2
Robert H. Fife	14	Gardner Murphy	2
Richard J. H. Gottheil	I	John M. Nelson	I
Evarts B. Greene	229	Paul H. Nystrom	2
Robert A. Harper	I	Federico de Onís	32
Herbert E. Hawkes	1	Robert Peele	450
Philip M. Hayden	I	George A. Pfeiffer	2
Frederick W. J. Heuser	14	Dr. Henry A. Riley	4
Dr. Francis Huber	458	Meyer Schapiro	I
Douglas W. Johnson	7	Herbert W. Schneider	6
Adam Leroy Jones	204	Edwin R. A. Seligman	178
Gunther Keil	7	Stephen Serghiesco	I
E. W. Kemmerer	10	James T. Shotwell	435
Charles Knapp	2	Walter I. Slichter	I
Corliss Lamont	146	Archibald H. Stockder	3
Dr. Frederic S. Lee	3077	Ashley H. Thorndike	I
Samuel M. Lindsay	350	Lynn Thorndike	12
Robert Livingston	500	Gustave L. van Roosbroeck	22 I
Herbert G. Lord	I	Dr. Benjamin P. Watson .	30
Nelson G. McCrea	I	Raymond M. Weaver	3
Roswell C. McCrea	3	Raymond Weeks	655
Ralph H. McKee	I	Dr. Allen O. Whipple	4
Arthur W. Macmahon	2	Benjamin D. Wood	100
Clarence A. Manning	4	Robert S. Woodworth	2
Howard R. Marraro		Ernest H. Wright	18
Gift of I book and photo-		J. Donald Young	ϵ
stats		Owen D. Young	3
Dr. Walton Martin	31		
From divisions of the	Unive	rsity:	
Columbia Optometric Associa			9
Pulitzer Prize Committee .			48
Columbia University Press			95

REPORT OF THE LIBRARIAN	423
Publishing houses sent us the following: Harcourt Brace and Company	95
Pynson Printers	4 600
From governmental sources and from organizations come:	have
British Columbia Provincial Archives Department In response to requests to Quebec and British Columbia generous gifts of documents have been received.	
Bureau of Railway Economics	30
Archaeological Survey of Nubia	2
Maps	23
From libraries and other institutions:	
American Statistical Association	28
Carnegie Endowment for International Peace	95 2
Chase National Bank	21
Library of William Andrews Clark, Jr	2
Finska Vetenskaps Societeten, Helsingfors	176
(The secretary of this society wrote asking if we wished to complete as far as possible our files of their publications. We made a list and this very generous gift was received.)	
Garrett Biblical Institute	4
Collection of Memoires sur l'historie de Belgique	37
E. J. W. Gibb Memorial Trust	I
Harvard University Library Hugo Munsterberg pamphlets	
Hugo Munsterberg pamphlets	24 21
Union Theological Seminary	70
Upsala Royal University	7-
Codex Argenteus Upsaliensis	1
Individual donors to whom our gratitude is due are:	
From the library of:	
Robert Arrowsmith	57
T. S. Austin, Mines '76	41
James F. Kemp.	103
Theodore Reinach	83 45
Louis openice Levy Confection	45

Columbiana:	
Mrs. G. C. Barbour	
Picture of the Class of '71	
Mrs. R. N. Raymond	
3 cups and 2 medals belonging to her husband	
Mrs. Oliver Lafarge	
Columbia Commencement program of 1829 and newspaper	
clippings of that date	
Inglis Stuart	
Notice on Verplanck	
Marcus Benjamin	1
N. L. Britton	
Plates for Addisonia	5
Mrs. Edward Sanborn Burgess	
Gifts from her husband's collection of books on Ladin	53
	37
	2
Mrs. W. K. Draper	
Tablet and bookcase	1
Mrs. George Graves	: (
Rev. Acton Griscom	
Letter book of the Panama Canal (given by Griscom, La Dow,	
Haines and Hazen)	
Mrs. Robert Jaffray	
Journal of a tour in Europe in the years 1828, 1829 and 1830	
	ij
George A. Kubler)(
Dr. George Laidlaw	Į.
	2
Mayo Clinic	,
Elsie Clews Parsons	3
Dr. Samuel Peskin	22
Raymond Pearl	
Collection of his papers	
C. H. Pforzheimer	1
Dr. De Witt Stetten	37
Erwin Stein	
0-1	
Miss E. Straus	8
	4
Mrs. Mary D. Van Alstyne	
A Commission appointing Peter van Alstyne, etc., 1827, signed by	
De Witt Clinton	
W. J. Walter	•
Dr. C. A. Whitney	
Dr. S. J. Woolley	50

The general statistics of the University Library are as follows:

Accessions:	
Volumes added: General Library and Departments	. 28,613
School of Law	. 5,366
School of Medicine (Decrease through consolidation)	. —8,347
Avery Library	. 322
Barnard College	. 2,863
Teachers College	. 5,293
College of Pharmacy	. 3,293
conege of 1 mannaey	
Total	. 34,385
Total of volumes in University Libraries, June 30, 1929	
Gifts: Pamphlets and volumes	. 23,627
Pieces received	. 6,385
Pieces sent out	
races sent out	
Total	. 28,136
Orders placed	. 12,784
Serials checked	. 62,864
Cataloguing:	
Cards made and filed:	
General Library	. 49,719
Departments	
Barnard College	. 5,592
Law Library	. 15,281
Medical Library	. 3,498
Replaced (including Law)	. 8,580
Depository	. 45,836
Autograph letter file	. 634
Total	. 161,637
Volumes catalogued	. 44,475
Volumes recatalogued	. 24,935
Volumes lost or withdrawn	. I,244
Binding:	
In Library bindery:	
Books bound	. 375
Volumes repaired	. 4,825
Pamphlets bound	. 15,211
Total	. 20,411

Outside of Library: Volumes bound and rebound	116
Total	527
Circulation:	
Volumes supplied from loan desk, including renewals 153,	310
Volumes in libraries, loaned and used	118
Total recorded use of libraries	428
Respectfully submitted,	
Roger Howson,	

ROGER HOWSON,

Librarian of the University

June 30, 1929

REPORT OF THE SECRETARY OF APPOINTMENTS

OCTOBER 1, 1928 TO SEPTEMBER 30, 1929

To the President of the University

SIR:

I have the honor to present herewith a record of the work of the Appointments Office from October 1, 1928 to September 30, 1929.

In the summary of our work which appears on the next page of this report you will see that most of the placement totals have been increased over the corresponding figures of the previous year. Although some of the individual gains are small there has been an increase of eight per cent over last year in the total number of positions filled. The gain of eighteen per cent in the number of term-time positions filled by men students indicates that the University is further increasing its aid to self-supporting students. The thirty-four per cent increase in full-time employment for women is pleasing to note, for it represents a substantial development of our service to the women graduates in business, journalism and secretarial studies, as well as to those in the Graduate School.

Our total registration for the year increased slightly, as did the total number of interviews. The latter figure has considerable significance in gauging the amount of detail work involved in making the placements reported. The term "interview" refers to the actual contact between applicant and employer, and the total of 12,756 interviews indicates the number of times a registrant was called to this office, given a description of a job, sent out to make application and checked for result. In hundreds of instances actual appointments were arranged for the applicant by telephone and several conversations held between employer and placement officer before the final decision was reached.

	Regis	tration		tions ered	Inter	rviews	Positions Filled				
	1928- 1929	1927– 1928	1928– 1929	1927- 1928	1928- 1929	1927– 1928	1928– 1929	1927- 1928	1926- 1927		
Full Time Men	879	794	1174	881	2188	1712	287	272	255		
Full Time Women	876	844	686	593	1264	1103	229	171	184		
Full Time Teaching	1182	1053	653	579	1224	1055	70	85	93		
Total Full Time	2937	2691	2513	2053	4676	3870	586	528	532		
Part-Time School Year Men	1466	1488	2869	2643	3422	3111	2663	2250	2184		
Part-Time School Year Women	822	829	1396	1325	1932	1503	1151	1117	1011		
Summer Men	1182	1044	1159	1323	1737	1821	980	1090	808		
Summer Women	698	655	649	560	1101	700	427	368	407		
Total Part-Time and Summer	4168	4016	5961	5851	8080	7135	5221	4825	4410		
Grand Total	7105				12756				4942		

Probably the most potent factor in the development of the University's placement service is the interest of the alumni. You are, of course, already familiar with the assistance rendered by the alumni associations of the various schools through such agencies as the Law Clerkship Committee of the Alumni Association of the Law School. In addition to these group activities, however, our alumni are constantly making valuable individual contributions to our employment program. Although statistical information is not available, my guess would be that twenty-five per cent of the new jobs secured each month either come direct from alumni or are the result of contacts which have been suggested to us by our graduates.

Many of our alumni are either at the head of their own businesses or in positions of administrative responsibility in large corporations, and their systematic employment of Columbia men and women indicates the value which they place upon our educational methods, and the confidence they have in the ability of Columbia people to do good work.

Some of our most active and interested supporters, however, are to be found among the younger graduates. Many of these were placed by this office in their initial positions after graduation and quite naturally are eager to help us place the members of later graduating classes. Although they have not yet attained to positions of executive responsibility, they nevertheless observe the personnel methods and needs of their own organizations and, by their suggestions, turn desirable openings toward Columbia.

It is interesting to note how the experience of earning one's own education produces an enduring interest in other students who later on face the same problem. Many a job on the Appointments Office docket bears the name of a former self-supporting student. I know of one alumnus through whose efforts we have been able to keep an average of twenty-five undergraduates satisfactorily employed throughout the academic year in suitable work yielding their tuition and living expenses. Were we to attempt to match this assistance in the form of annual scholarship aid the capital sum of \$360,000 would be required. Yet the foresight and interest of one alumnus has produced practically the same result.

In our efforts to enlarge the scope of our placement work we receive assistance from a number of business and profes-

sional associations. Chief among those to whose directors we are grateful for their coöperation are:

American Management Association Engineering Societies Service Bureau National Association of Manufacturers National Association of Book Publishers National Publishers Association New York Medical Week

Careful study has been given during the past year to the income-producing possibilities in the establishment on the campus of various sales and service agencies and concessions, supervised by this office and operated by reliable and deserving students. At the present time our students go off the campus to secure merchandise and service which might logically be furnished by their fellows. The student agency plan, as a means of increasing the amount of term-time employment, has been successfully operated in a number of universities, particularly those located in small communities. The problem at Columbia is complicated by our urban location, yet at the same time there seems to be a number of entirely feasible projects waiting for development. Several are already under way.

In October, 1928, the Department of Buildings and Grounds and the University Committee on Athletics granted to this office the privilege of organizing a group of refreshment stands at Baker Field. This concession was placed in the hands of trustworthy and deserving students who furnished good service throughout the football season and at the same time received a fair financial return for their efforts.

The Columbia Blotter, carrying the announcement of selected shops in the vicinity of the University, has for several years been published by a reliable and enterprising student and distributed in the men's Residence Halls.

A newspaper and magazine delivery service in the dormitories would be of definite value to the residents. The organization, under the direction of the Columbia University Press Bookstore management, of a student agency to promote the sale of carefully chosen articles such as Christmas cards,

sports goods and haberdashery would probably meet with approval from the Residence Halls Committee and the Department of Buildings and Grounds.

At other eastern universities there exist successfully managed student travel agencies, laundry agencies, pressing agencies and many others. I believe that certain of these can be fitted into our scheme of things and we intend to undertake their organization as opportunity presents itself. In each instance this office must secure the approval of the University department concerned and must assume full responsibility for the conduct of the enterprise. Care must be taken that no agency be established unless it be of actual benefit, not only to the students employed but also to the entire University community.

The loan funds of the University have been administered during the past year on the same general principles as I have described in earlier reports. It has been demonstrated more clearly than ever that the effectiveness of our system of student loans is due in large part to its coördination with our student employment program. Entirely self-supporting students are enabled by periodic short-term loans to spread the expense of their tuition over the full year; partially self-supporting students are loaned sufficient money to balance their yearly budgets; overworked students are enabled through loans to reduce the amount of time they have previously found it necessary to devote to outside work.

During the academic year 1928–1929 the sum of \$78,050.34 was loaned. The total number of loans was 516 and the total number of borrowers, 394. The distribution of loans and amounts according to schools is shown in the table on page 432. The equivalent figures for the previous year show that \$70,303.27 was loaned, 500 loans being made to 391 borrowers.

It might be of interest to describe briefly some of the more unusual positions which our students have secured during the past year. Of the most sought-after summer positions, those as resident tutor companions, twenty-one were secured during the past summer, paying all the way from \$100 to \$300 a month and living expenses. Another tutorial position was for an adult who, on account of almost total lack of hearing, had had no formal education, could neither read nor write, and could hardly articulate. Several men were placed as seamen on small private yachts and another on graduating from the

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	İ	Si	Borrowers		Ien		Men		Men	
		Loans	ros		anted		anted		ranted	<i>(</i>
			301	I	Loan	2.	Loans	3	Loans	Total
School		Total No.	Total No. E	Number	Average Amount	Number	Average Amount	Number	Average Amount	Amount Lent
College		236	177	122	\$140.44	51	\$309.30	4	\$378.50	\$33,887.64
Law		52	37	23		13	291.46	1	385.00	7,794.04
P. & S		32	21	10	246.00	11	422.73			7,110.00
M. E. C		19	13	7	150.29	6	297.67			2,891.00
Graduate		88	73	58	141.78	15	303.78			12,780.16
Business		16	1 1	10	142.00	1		1		2,240.00
Architecture		5	4	3	205.00	1	285.00			900.00
Journalism		16		6	154.17	5	290.00			2,375.00
Dentistry		19	17	15	183.00		335.00			3,415.00
Library		11	9	7	179.86		310.00			1,879.00
Extension		13	12	ΙI	123.00	1	199.00			1,552.00
University Under	-									
graduates		8	6	4	214.13	2	185.00			1,226.50
Optometry		1	1	1	15.00					15.00
Total		516	394	277	\$150.73	112	\$312.14	5	\$379.80	\$78,050.34

School of Engineering was engaged to run the auxiliary engine on a schooner bound for a six-months' Mediterranean cruise.

One of our graduate students in government was recommended to the directorship of a miniature city of one thousand children. He planned and organized a complete municipal government, with its departments and bureaus patterned after those of a large city and staffed by the children.

From our list of applicants we supplied on request a full-blooded American Indian who was recommended to tutor a physician in the language and customs of his tribe. A large national advertiser secured from us students to handle an elaborate translation job involving fourteen different European languages.

Our summer vacation fortuitously coincided with the period during which two large public utilities companies offered to their stockholders rights to subscribe to additional shares. Since these offers necessitated the temporary employment of a large number of administrative and clerical workers, many of our students were thus able to secure profitable summer work in the city.

Among the most unusual positions were one for a department store Santa Claus which was filled without difficulty; six market research jobs requiring our men to spend the early morning hours counting the bottles of milk on the door steps of private homes, and three for men to call each evening at one of the telephone exchanges and escort the operators to their homes.

The passing of the Waldorf-Astoria has had its own special significance to Columbia's student-workers, some of whom were employed there for several years as waiters at banquets, serving with pleasure and profit under the supervision of Oscar.

Our efforts during the year covered by this report have been concentrated on improving the methods and increasing the effectiveness of our present service. It is our good fortune to have an experienced and loyal staff, each member of which is giving constant study to the various problems of our registrants and the means of further developing the market for our services. During the coming year we hope for further progress along the lines of efforts which we are already following.

Respectfully submitted,

NICHOLAS McDowell McKnight,

Secretary of Appointments

October 1, 1929

FULL-TIME PERMANENT PLACEMENTS MEN

OCTOBER 1, 1928—SEPTEMBER 30, 1929

Total	Total
Accounting 24 ¹	Miscellaneous
Advertising 4 ²	Personnel 4
Banking 83	Printing 2
Chain Store Work 1	Public Organization 3
Chemistry 3	Public Utilities
Credit Investigation I	Accounting I ¹
Department Store Work 123	Engineering 4
Engineering	Office 276
Civil 1	Sales Promotion 5 37
Chemical 2 3	Publicity 3
Foreign Trade	Publishing
Government Service 1	Business 3
Insurance 5	Editorial 7 10
Investment Banking and Bro-	Real Estate 5 ²
kerage	Resident Tutoring
Journalism 4	Retail Trade 3
Landscape Architecture 1	Statistics
Law 925	Transportation 2
Manufacturing	Wholesale Trade
Accounting 2	
Office 183	
Plant 3	
Sales	
Sales Promotion 1 35	Total

¹ Filled in coöperation with the School of Business Committees on Employment.

² Two filled in coöperation with the School of Business Committees on Employment.

³ Five filled in coöperation with the School of Business Committees on Employment.

⁴ Eight filled in coöperation with the School of Business Committees on Employment.

⁶ Filled in coöperation with the Law Clerkship Committees of the Alumni Association of the Law School and the Clerkship Committee of the Third-Year Class of the School of Law.

⁶ Ten filled in coöperation with the School of Business Committees on Employment.

⁷ Three filled in coöperation with the School of Business Committees on Employment.

FULL-TIME PERMANENT PLACEMENTS

WOMEN

OCTOBER 1, 1928—SEPTEMBER 30, 1929

T_{0}	otal	Total
Accounting Advertising. Art Chemistry Department Store Work Education Educational Research Engineering Foreign Trade Foreign Travel Home Economics Hotel Management Insurance International Relations Investment Banking and Bro-	3 5 2 2 4 ¹	Marketing and Merchandising. 4 Medicine
	24 ³	Retail Trade 2
Journalism	3	Social Service 5
Law	4	Statistics 3
Library Work	5 11	Total

¹ One filled in coöperation with the School of Business Committees on Employment.

 $^{^{2}\,\}mathrm{Three}$ filled in coöperation with the School of Business Committees on Employment.

³ Seven filled in coöperation with the School of Business Committees on Employment.

COLLEGE AND UNIVERSITY TEACHING APPOINTMENTS

OCTOBER I, 1928—SEPTEMBER 30, 1929

Department	Rank	Men	Women	Total
Ancient Languages				
Latin	Instructor	ı	I	
Latin and Greek	Instructor	I		3
Biology	Instructor	r		
	Assistant	I		2
Chemistry	Professor		ı	
•	Instructor	I		
	Assistant	2	2	6
Commercial Law	Instructor	I	<i>.</i>	I
Economics	Department Head	I		
	Professor	ı		
	Assistant Professor	ı		
	Instructor	2	ı	6
English	Instructor	12	2	14
8	Instructor	1 1		i
	Instructor	8	4	12
,	Professor	1	l	I
	Instructor	2	I	3
	Department Head	1	ı	J
0	Instructor	2	2	
	Assistant	1		
German	Department Head		ı	
	Instructor	1	ı	
Spanish	Associate Professor	I	_	
Spanner	Instructor	2	·	11
Physics	Instructor	ı		ī
Psychology	Assistant Professor		I	_
	Instructor	3	[<u>.</u>	4
Political Science	Instructor	I		I
	Instructor	ı		1
Sociology	Instructor	3		3
	Total	52	18	70

FULL-TIME PLACEMENTS BY UNIVERSITY DEPARTMENTS

OCTOBER 1, 1928—SEPTEMBER 30, 1929

Accounting.														17
Agriculture.														
Architecture														2
Chemistry .														18
Journalism														3
Total													-	4.

MEN'S REGISTRATION FOR PART-TIME WORK ACCORDING TO SCHOOLS

OCTOBER I, 1929—SEPTEMBER 30, 1929

	Winter	Summer	Total
College	608	518	1126
Law	116	104	220
Physicians and Surgeons	43	36	79
Engineering		27	66
Graduate		r 84	462
Business	. 79	46	125
Architecture	. 22	13	35
Journalism	. 31	I	32
Dentistry	. 9	13	22
Library Service	. 4	2	6
St. Stephen's	.	2	2
Extension	101	69	170
University Undergraduates	. 9	7	16
Seth Low	. 19	18	37
Optometry	. 11	. 3	14
Pharmacy		2	9
Summer Session	.	69	69
Teachers College		64	153
Union Theological Seminary	. I	4	5
	1466	1182	2648

PART-TIME AND SUMMER PLACEMENTS

MEN

OCTOBER I, 1928—SEPTEMBER 30, 1929

			chool Ye 1-May		Summer June 1-Sept. 30				
Classification	Steady	Tempo-	Service	Steady	Tembo-	Service			
Accountant		I							
Admissions Officer						I			
Advertising		İ							
Assistant					3				
Production		1	I		-				
Architectural Designer	• ;	1	I		1				
Artists' Model		1	7						
					I				
Athletic Coach		2	I						
Attendant			3		I				
Attendant to Invalid		2	7						
Biographer		1	-						
Bookkeeper		3							
Book Reviewer						I			
Bowling Alley Attendant		1	2						
Boys' Club Leader		36	4		I				
Bus Boy					I				
Camp									
Athletic Director					2				
Chauffeur					I				
Director of Activities					2				
Councilor									
Athletic					7	ĺ			
Dramatic					I				
General					10				
Manual Training					I				
Music		l	1		2				
Swimming	٠		1		2				
Doctor	٠			· · · · •	I				
•					3				
Secretary					I				
Waiter					8				
Canvasser			2			1			

PART-TIME AND SUMMER PLACEMENTS—MEN (CONTINUED)

	School Year Oct. 1-May 31			Summer June 1–Sept. 30		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Cashier	9 7 1	2 II I I22		3	8	
Clerk Bank		4		I I I	I	
Registration	40 	1 5 94 157 3	I	I I 82	3 69	
Retail Store				1 2 3	7	
Concession Assistant				4	7 7 8	
Demonstrator		9		 I	10	
Draftsman	,	14 11 49		4	3	
Electrical Repairman		I		5 2	1	

PART-TIME AND SUMMER PLACEMENTS-MEN (CONTINUED)

	1	hool Ye . 1-May	1	Summer June 1–Sept. 30		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Employment Assistant	I					
Engineer						
Mechanical (Factory)				2		
Inspector				I		
Yacht (Mediterranean)				1		
Engineering Research					ı	
Entertainer						
Actor	ı	1				
Musician		56		4	6	
Singer	1	2		4	"	
Furnace Man		2				
General House Assistant				1		
Guide				1	11	
Health Department Supervisor				1	11	
House Man				ī		
	1			1	4	
Inspector						
Interpreter					I	
Investigator		6		2	2	
Laboratory Assistant				I		
Lecturer		2				
Legal Research						
Life Guard					3	
Life Guard—Boatman				2		
Literary Worker	1					
Assistant	1	2		2	2	
Critic		2			ŀ	
Editorial Assistant		2		5		
Journalist						
Newspaper Correspondent	I					
Proof Reader		I			1	
Writer	2					
Manual Laborer	I	12	54	I	6	9
Mathematician		1				
Medical Assistant	5		1			
Messenger	5	51	59		1	17
Miscellaneous		-	1491			41 ¹
Motor Bus Courier	4			2		
Office Boy		1				

¹Through International House.

PART-TIME AND SUMMER PLACEMENTS—MEN (CONTINUED)

Classification		School Year Oct. 1-May 31			Summer June 1–Sept. 30	
		Tempo- rary	Service	Steady	Tembo- rary	Service
Optometrist					I	
Part-Time Teacher	6	I				
Photographer		I			ı	
Physical Director	I					
Physician		 .		I		
Physicist		1				
Playground Director.				2		
Porter	τ					
Process Server		I				
Proctor		97			63	
Psychological Assistant	1					
5		I				
Radio Operator	1					
Reader	1					
Real Estate Agent	3					
Research Worker	3	6			4	
Resident Boys' Club Leader				1		
Resident General Assistant	1					
Resident Tutor		I				
Resident Tutor-Companion.	6	2		21	4	
Salesman	5	53		23	i	
Sales Promoter	3	2				
Seaman—Yacht				2		
Secretary	3					
Section Manager	7					
Settlement Worker	9			1		
Signaller			16	i		
Soda Dispenser				3	1	
Solicitor	1	I				
Sports Official		3	20			
				ı		
Steamship Representative	1					
Stenographer	4	9			2	
Supervisor	3	ī				
					9	
Switchboard Operator	7	2		4	4	
Ticket Taker	ī	4			il	

PART-TIME AND SUMMER PLACEMENTS—MEN (CONTINUED)

		School Year ct. 1–May 31		Summer June 1–Sept. 30		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Traffic Counter		8			I	
Translator	5	15		5	10	
Traveling Companion				1		
Tutor	132	51		21	60	
Tutor Companion	14	I			2	
Typist	4	4		1	3	
Usher	I	146	458		44	16
Waiter	2182	5	41	2273	2	
$Watchman \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $		2				
Totals	685	1189	789	508	378	94
Total School Year			2663	Sun	nnier .	. 980
Total—Steady Positions	11	93				
Total—Temporary Positions						
Total—Service Positions		83				
Grand Total	26	12				

² Filled through University Dining Halls 196.

³ Filled through University Dining Halls 215.

PART-TIME AND SUMMER PLACEMENTS WOMEN

OCTOBER 1, 1928—SEPTEMBER 30, 1929

Classification	School Year Oct. 1-May 31		Summer June 1–Sept. 30	
·	Steady	Temporary	Steady	Temporary
Artist	I			I
Athletic Coach				
Swimming			1	
Tennis				I
Bookkeeper	2			I
Camp Councilor			10	
Camp Secretary			3	
Canvasser	2		I	
Cashier	4			I
Chaperone		1		
Clerk				
File				3
Office	46	91	10	26
Reception	3	1		2
Store	21	16	5	1
Companion	6	9		8
Companion Tutor	6			
Cook			I	
Dressmaker	I	3		I
Editor	I		I	
Entertainer				
Actress	2			
Motion Picture Actress				ı
Hostess	4		4	
Indexer		2		I
Investigator	4	5	3	
Journalist	9	ı	I	
Letterer		3		
Librarian	I			
Literary Assistant			2	I
Manual Labor	3	6		1
Miscellaneous	911		2 I ¹	
Model	5			1
Mother's Helper	48	58	10	17

¹ Through International House.

PART-TIME AND SUMMER PLACEMENTS—WOMEN (CONTINUED)

	School Year Oct. 1-May 31			mmer –Sept. 30
Classification	Steady	Temporary	Steady	Temporar
Musician				
Accompanist	I			
Church Soloist	ı			
Pianist		1		
Piano Teacher		I		
Organist				I
Proctor		4		6
Proof Reader	I	4		ī
Psychologist	2	I	2	•
Reader	1	ī	3	
Recreational Director	1	•	٥	
Research Worker	I	2	6	
Resident Companion	5		12	
D			12 I	
Resident Girls' Club Leader			ı	
Resident Tutor-Companion	I	• • • • • • • • •	_	_
Salad Maker			10	I
a .	I 21			
Scorer		2		
Secretary	11	4	8	4
Section Manager		I		
Settlement Worker	3			
Statistician	4	· · · · · · · · · · · ·	2	2 I
Stenographer	62	125	24	39
Switchboard Operator	· · · · · · · · ·	I	I	
Teacher	13	· · · · · · · · · · · ·	I	
Translator	2	5		2
Tutor	48	24	9	12
Typist	40	275	17	89
Usher	2	2		
Waitress	7	16	11	I
Totals	488	663	183	244
Total School Year		. 1151	Summer.	427
Total—Steady Positions Fotal—Temporary Positions	•			
Grand Total		 		

ST. STEPHEN'S COLLEGE

REPORT OF THE WARDEN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929

To the President of the University

SIR:

I have the honor to submit my report of the progress of St. Stephen's College during the year 1928–1929, the first year after its incorporation into the educational system of the University.

During this year, delightful as it has been both from the point of view of the College and from that of the University, it has seemed to me increasingly plain that one thing that is necessary both for the College and for the University is a clear statement of what is involved in the relationship and of what good is to be hoped therefrom both to the University and to the College. It is my endeavor in this report to state something of what is involved and expected, before I deal with such details of management as need remark.

St. Stephen's College has long believed that as an undergraduate college its chief business is to give to its students sufficient training, preparatory to specialization and vocational concentration, in the understanding of life as a whole, in perception of values, in estimation of the human problem as a unit. The education which it seeks to impart consists. not so much in an accumulation of facts stowed away for specific use later on, or the mastery of techniques of ulterior value, but rather in enabling the student to discover himself, his universe and his destiny, and to see all these as a unit. What is intended is that he shall arrive at a working theory of life. To that end we may ask our students to consider many things—to read literatures, to ponder history, to study science, to think about religion—but always for the chief purpose of assisting them in coming to at least the beginning of a maturity based upon a perception of life's unity. The

College will not by itself be esteemed as having even reasonably succeeded unless it can turn out graduates who are not merely informed about some thing or some things but are also, and more important, intellectually balanced, alert, and eager—incipient philosophers and, in the largest sense, "men of the world."

There are four reasons why students seek to go to American colleges, four conflicting ideas in the popular mind of what a college is and of what college life ought to consist. These are urgent to prevail, each demanding right of way.

The first of these is the theory which made the older American colleges the power for good that they were. These colleges were founded avowedly on the British model. They were planned to be, in the new land, what the colleges at Cambridge and Oxford were, and essentially still remain. Such a college does not regard itself merely as a place where facts are taught, but rather as a place where all the faculties and abilities of able men are developed toward understanding; as a place where older and more sophisticated teachers live intimately with younger and less sophisticated students and, because of that intimacy and through it, bring out their students. They are not fact foundries but man factories. They produced a very high type of intellectual achievement, but they also produced something more. They were designed for exceptional men who came to college to learn how to think and to live. They were intended to turn out competent, wellrounded leadership. And they did it.

The second theory of college education which today clamors for control is that of those who believe that in a college the methods of a continental university should be followed. The continental university is especially designed to deal with scholarly problems on highly specialized lines. Neither the morals and manners of the students nor their development of a theory of life are the concern of such a university. When our American universities were projected, for graduate and technical study, which was only about half a century ago, the German methods were quite properly followed within them. There was no real necessity for making over under-

graduate colleges in accordance with the Teutonic pattern, but nevertheless that was done in institution after institution. Many of the older and more reputed of our undergraduate training schools, despite a stout and heroic resistance put up by the older professors, largely went over to the continental system and, abolishing residence and the intimate culture of men, contented themselves with attempting to feed men facts.

This transition was facilitated by that immense growth in numbers of undergraduates which followed our rapid increase in wealth. It is impossible to administer a college of the older type unless the number of students is sufficiently small for intimate and extracurricular contact between teachers and students, and unless the life of the institution remains centered and communal. Yet numbers could hardly be limited. Crowds were clamoring at the gates. The authorities opened the gates, the crowds poured in, the walls were The old-fashioned college was no longer possible. New methods had to be devised and those new methods were the methods easiest and most readily at hand. The college became a pseudo and premature university. The greatest tragedy that has ever happened to American higher education was the failure of its administrators to perceive what they sacrificed when they enlarged the size of collegiate bodies and abandoned campus requirements. Everybody now knows that what should have been done, instead of making the colleges so large that they lost their original character, was to have founded more colleges. These two theories are still contending with one another. In most colleges there is resultant confusion of method. Ineffectiveness exists because the conflict has not been squarely acknowledged.

But the situation is even more complicated. There are two other tendencies which further confuse and hamper the American college. One of these is the "vocational" tendency. There are many persons who insist that the primary business of a college is to teach its undergraduates how to make a living. They claim that students should be taught only, or almost exclusively, such things as bear directly upon their wealth-producing possibilities. There is undoubtedly need

for such training in the world. There ought to be trade schools of many kinds, but confusion is caused by mixing up the trade school, the purpose of which is vocational, with the college, the purpose of which is the promotion of sane living based on thought and scholarship. Into the colleges have come thousands who look at everything presented to them from the point of view of possible dollars-and-cents advantage to them in later life. Their interest in science is only in its applied aspects. They are attracted by social sciences only as these may make them more effective manipulators of society. They are drawn to literature and the arts generally almost not at all. They demand a utilitarian curriculum. The complicating effect of this demand and its tendency to destroy all unity of purpose within the college can easily be recognized.

The fourth theory, which helps to make up the confusion known as the American college of the moment, is that the purpose of a college is to provide four years of pleasant experience with a veneer of polite accomplishment. The desire is for a regimen which will thoroughly train students in next to nothing, rather than expose them to a mass of miscellaneous information by virtue of having which they may pass muster among those deemed socially superior. They are to study just enough literature to know the names of prominent writers and sufficient desultory facts about them to carry them through after-dinner chatter. They are to know a few scientific catchwords, a few smart historical attitudes, a smattering of almost everything, and little more than a smattering of anything. All this may be acquired with small demand upon the time and efforts of undergraduates, who may then devote the major portion of their college days to what is known as "student activities." They may shine on athletic teams or, if more anæmic, they may manage the same; they may sing on glee clubs and take part in theatricals; they may belong to clubs of supposed social sanctity or to fraternities. They seriously say that the real purpose of going to college is to take part in these incidental avocations. To them a college is a sort of club, a group of professedly sophisticated young

people, living an easy life, which is punctuated by frequent week-ends away, and gently sprayed with culture.

It is admittedly very difficult, in the face of a public opinion which holds such variant definitions of a proper college, to make a definite and unified program of study and plan of life in any undergraduate institution. With no desire to solve the problems of any other college, but rather to have for its own problem an attempted solution which is consistent, St. Stephen's College holds that certain factors are necessary, and has built its whole educational system and its method of life upon the determination to make effective these factors, which are as follows:

I. Residence and acquaintance. It involves no disparagement of non-residence colleges to say that, however good they are in other respects, they do not give the same sort of training that residence makes possible. Residence consists in something more, however, than merely going away from home to live in the vicinity of a college. Living in a college town does not of itself mean much, nor even living in a college dormitory. Residence, to be useful, must be such as exposes each student to contact both with his fellow students and, more important, with his instructors. Such residence makes possible educative acquaintance. In a college, personal contacts are indispensable. The quality of the persons whom one comes to know is as important as the number of persons met, even more important. The student must have opportunity not only for meeting people but for knowing people, and the larger the group, the less normal such contacts are. A mere bowing relationship with a great professor, a man of world reputation, is not really so helpful as intimately to know some honest, quiet, thorough, even though less-known instructor. It would be better to know the greater man; but, where students are too many, such acquaintance is not usually possible. The small college has this great advantage—that the relationship between teachers and students can easily become more than casual. The bigger the college, the more it has to make efforts, frequently quite mechanical, to establish contact which the small group enjoys naturally and inevitably.

- 2. Self-directing investigation on the part of the student. It will not do to deliver predigested information to be absorbed by the student as a sponge absorbs water, to be exuded again when squeezed in examinations. It ought to be an educational axiom that secondhand knowledge is never knowledge. A student must be shown how to do his own work, make his own investigations, arrive at his own criticisms, think his own thoughts, acquire his own knowledge. Lecture methods and specified courses of the sort commonly used simply will not do. The proper function of a faculty is not so much to teach as to be available for students to use. Self-direction, subject to advice and help, is indispensable.
- 3. The importance of manners and morals. It is true that to be an educated person does not involve a knowledge of all the fine points in books of etiquette, but it is equally true that being a boor is no help in the pursuit of a scholarly or otherwise useful career. Now good manners cannot be formally taught; they must be caught from association with wellmannered people. As for morals, what is necessary is that the student should come to estimate for himself moral standards and to adopt his own rules of behavior. To this end he must have contact with persons who before him have thoughtfully arrived at such standards and rules. training, too, must be unconscious training, derivative training. It has been truly said that character is a by-product. Sometimes people forget to notice of what it is the by-product. In most cases it is the by-product of friendly contacts with people of character, older and more mature than ourselves.
- 4. A staff competent for individualized instruction. Every one of the points so far noted has involved easy and casual contacts of students with the teaching staff. But one must be sure about the caliber of that staff. I know of one college which boasts that "every student knows every teacher." A canny observer, who knows that college well, once inquired, "Yes; but who would wish to know them?" Most people are aware of the difficulty of getting competent men for intimate teaching; but it is still true that a college which does not slave-drive its staff, which does not pile too many pupils

into its classes, and which pays decent stipends can, even now, if it takes care, get charming, urbane, scholarly men to live with and to work with its students. It is quite certain that if more colleges did reasonably treat and reward teachers, there would soon be plenty of such men to man their staffs. Decent college education is always going to cost money, money spent on men. Our staffs must be well-read, traveled men of leisure and poise, unrushed, unworried by constant obsession with the difficulty of providing for their families' daily bread. If an American college will reasonably pay its teachers instead of erecting ridiculously extravagant buildings, it will minister less to spiritual pride, but it will considerably further culture.

- 5. No religious or secular inhibitions. A college may propperly be expected to see to it that students are not inhibited either from scientific or intuitional and mystical approaches to truth about themselves, their universe, and their destiny. There are happily fewer colleges which inhibit from scientific investigation; but religious inhibition is no less harmful than secular inhibition. Living is not merely a scientific thing. If the warp of the pattern of knowledge is scientific, the woof is intuitional. To ignore the mystical experience of the race is to produce men who are little more than perambulating microscopes, adding machines, and card files. Something more than that is needed. The student needs official encouragement to seek truth extra-scientifically. This note must be present in all of his teaching; it must come through the attitude of his instructors. No matter what high reputation a college may otherwise have, it is defective if it is administered with a secularist bias.
- 6. Freedom from urban distraction. More and more of us are becoming convinced that the modern city is possibly not the best place for an undergraduate college. Such colleges as now exist in the cities must not, of course, be abandoned. What is rather required is that their difficulties shall be recognized, and that every effort shall be made to overcome those difficulties and to strengthen them in their work. But certainly, many of us think, city colleges ought not to be enlarged

beyond their already great size, nor should new ones be founded if any other sort of institution can be discovered which can do their work. The city is at once too bad and too good for undergraduate training. The badness consists of a complex of noise, hurry, and great nervous strain. The goodness is composed of many lectures, delightful concerts, the opera, a multitude of socially charming entertainments and good times, all of them delightful in themselves but definitely inimical to concentrated thinking. In a city college, students are almost never around where you can lay a kindly hand on them, listen to their emerging ideas, give them the help which you long to give. The staff itself is diffused. Its members live, many of them, miles away in distant suburbs, and those who remain in town are lost to sight and discovery in hivelike apartment buildings. It is well known that the modern city is not a good place for creative work. Painters, novelists, critics, and poets have for the most part moved to the country. Undergraduate education seems almost certain largely to follow them before very long.

7. The need for the small college of a university integration. All that has been said may seem to be an argument for small independent colleges as against colleges connected with great universities. That is not at all our belief. We believe the day of the small college, independent of the university, definitely to be over. Some of the well-endowed and fashionable ones may go on living for years, decades, but they will be fewer and fewer, and eventually even the wealthiest of them is likely to disappear.

There is one insuperable difficulty which makes disastrously hard the successful administration, in this day and age, of an independent small college. That is the isolation, the academic and intellectual isolation, of the teaching staff. The key to the whole problem is, let it be repeated, the scholar to whose influence the undergraduate is exposed. Now in a small independent college the teacher of, let us say, biology, lives academically isolated. He has departmental contact with few if any persons who are leaders in research or advanced instruction in his field. Research opportunities

are rarely offered to him. He reads his journals and his books, but cold type is no substitute for living contacts. Almost his whole time is spent in the company of inferior and immature student minds. The leading biologists, never seeing him except at crowded conventions, soon forget him. He is adrift, alone. If he has no chance to get out, he is apt to get "funny," disgruntled, self-pitying, petty, intriguing, gossipy. Some men are big enough to survive it all; but not most. After a few years more he is usually a dull teacher and no fit guide for any man seeking the truth about himself, his world and his destiny. Every college has some such man. In some places they make up almost the whole group; and, inasmuch as students take color from teachers, this is all very bad for the product sent out in successive Junes. In these days, any type of college which must isolate its staff from participation in that great stream of life which centers in the great universities is done for.

What is a possibility is the creation of small, intimate, personalized, and secluded undergraduate colleges within the university itself, each largely self-governing and living its own life, but all of them taught by scholars banded firmly to one another and to the research scholars in the common life of the university. Thus, and many of us believe only thus, can we get the ideal institution—the small college with the university mind. Thus only can we conserve all the values of the American college that once was, and also all the magnificent values of the great modern university-college.

So sound, so reasonable is this solution that four American universities last year, quite independently, set out to establish some such thing. One is St. Louis University, which has now several working units in Missouri, each living its own life, but all united through coöperating and interchanging faculties. The significance of this experiment is, however, limited by the fact that all these colleges are Roman Catholic in control and teaching. A second experiment is the so-called Harvard House Plan. It is purposed to divide Harvard undergraduates into "houses," where they may live in closer contact with resident scholars. To many, the plan seems less

significant than the wide publicity given it would indicate. There seems to be no real desire to disintegrate the student body in respect to the teaching, which is still to be universitygiven rather than house-given. Nor, apparently, are the colleges to be self-governing units, each really developing a life independent of the others. What the plan actually will amount to is as yet impossible to say. It is still for the future; but the desire behind the move is of very great significance. A third university with a proposal in this direction is the University of Pennsylvania. This goes further than the Harvard plan at once, in that it recognizes the unsuitability of a modern American city for the best type of undergraduate training. A tract of beautiful land has been acquired on the Schuylkill River, at Valley Forge, big enough for a half dozen small colleges, each distinct and separate from the other. A committee of trustees, faculty, and alumni, headed by Senator Pepper, is devoting an entire year toward the perfecting of necessary plans. The old undergraduate college in west Philadelphia, existent since Franklin's day, now greatly overshadowed by professional and graduate schools, is to be retained and strengthened, and to it are to be added these other equally university colleges in the more rural location.

Meanwhile, while these projects are being planned, Columbia in this college is now actually carrying out its own similar endeavor. It has been recognized that Columbia College, the University's undergraduate college in the city, 175 years old, needs in every way to be maintained, supported, and encouraged in the great work which it is doing; but that it must immediately and with emphasis be supplemented. In 1928 there was amalgamated into the university system St. Stephen's College, an undergraduate college of arts, letters, and sciences, founded in 1860. Despite its Episcopalian ownership and its saintly name, this college was and is without any denominational restriction in its selection of personnel, teaching, or students. We are located in the country, far from the hurly-burly of the metropolis but near enough for real and not merely paper faculty contacts with the rest of the University. In and through this country college the University has

set itself to find out exactly what is involved in creating and conducting "a small, country, personalized undergraduate college, entirely within the University." Such an institution has never existed in this country. While others have been projecting plans of a similar sort, Columbia has now an actual beginning, an existent experiment, to be observed, studied, criticized, and adequately supported.

During the year our life within the University has been most happy. We have found that the creation of real and vital contacts is quite possible, notwithstanding the ninety-five miles which separate the campus at Annandale from the schools of Morningside Heights. These relationships are, as might be expected, and as is most needed, chiefly faculty relationships. We have deemed it neither desirable nor practicable to attempt to unite in any way, directly or indirectly, the student bodies of the city college and the country college. The more distinct their living, their thinking, their amusements, the better for both. Individualization of the constituent colleges is as necessary as coöperation between them.

The very fact that the men teaching at Annandale all hold University rank and are members of the departmental organizations is itself helpful. In every case, the members of our Faculty have attended meetings of the departments when these have been held. One difficulty in integration lies in the fact that a number of the University departments hold no meetings and make possible little or no contacts between the teaching scholars within a given field. From the point of view of St. Stephen's College, this is unfortunate; but happily such departments are in the minority. Even where departmental contacts are impossible every effort has been made, and with considerable success, to bring into acquaintance the staff of the College and the rest of the University staff.

Another cementing experience has been the visits of a number of administrative officers and heads of departments from Morningside Heights. Among those who have spent some time at the College have been Dean Hawkes of Columbia College; Dr. Adam Leroy Jones, the Director of Admissions; Professor John J. Coss; Professor Dixon Ryan Fox; Professor Henry Clapp Sherman; Professor Thomas S. Fiske; Professor Frank Gardner Moore. All of these, and others of somewhat less prominence in the University, have been exceedingly useful in bringing about an active affiliation. Most important of all, the President of the University visited the College on October 31, matriculated the new students, made an address to the whole College and conducted a conference with the Faculty. Already arrangements have been made during this coming year for the development of faculty contacts to a much larger degree.

In so far as one year's experience can reveal, to create a small country college within the University is not only entirely practicable but full of promise. The integration has already been justified by the results achieved.

Respectfully submitted,

BERNARD IDDINGS BELL,

Warden

June 30, 1929

REPORT OF THE REGISTRAR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1929 AND FOR THE SUMMER SESSION OF 1929

To the President of the University

SIR:

As Registrar of the University, I have the honor to submit the following report for the year ending June 30, 1929, and for the Summer Session of 1929.

During the year beginning July 1, 1928, there were enrolled at Columbia University 36,587 resident students as compared with 36,688 in the year preceding, and 25,925 in 1919–1920. This student body is made up of three main divisions as follows:

	Men	Women	Total
Undergraduate, Graduate and Pro-			
fessional Schools	7,788	8,131	15,919
University Extension	5,296	4,422	9,718
Summer Session, 1928	4,272	9,735	14,007
Total	17,356	22,288	39,644

The net total is arrived at after deducting 3,057 duplications within these groups, 2,880 of whom were Summer Session students who continued in the Winter or Spring Session following.

14,007 were enrolled in the Summer Session, 20,930 in the Winter Session, and 19,419 in the Spring Session. Thus the aggregate session registrations numbered 54,356.

12,135 not included above received instruction as non-resident students in University Extension as follows: 9,282 in Home Study courses, 664 in Special courses and 2,189 in Extramural courses.

Of the students in the undergraduate, graduate and professional schools, 6,766 or 42.3 per cent were residents of Greater New York, and 570 or 3.6 per cent were from foreign countries. Every state of the Union was represented. One hundred or

more came from each of 18 states; twenty-five or more, from each of 39 states; and ten or more, from each of 46 states. The largest foreign representation was that from Canada with 115; China came second with 109; Japan, third with 50; and Great Britain, fourth with 33.

During the academic year, 4,839 received degrees and diplomas in course, 4,622 completing courses leading to a degree as compared with 1,462 ten years ago.

Within the Corporation, exclusive of the Schools of Medicine and Dental and Oral Surgery, 3,470 courses were conducted with aggregate attendance of 114,981 as compared with 115,828 in the year preceding. The following shows the number of courses and the aggregate attendance by divisions:

Division	No. of Courses	Aggregate Attendance
Graduate, Undergraduate and Pro-		
fessional Schools	1,499	47,621
University Extension	962	31,538
Summer Session, 1928*	1,009	35,822
Total	3,470	114,981

University Extension gave instruction to 25,903 students, resident and non-resident. These are classified as follows:

Resident Students:	
Matriculated	4,050
Non-matriculated	9,718
Non-resident Students:	
Home Study Students	9,282
Extramural	2,189
Special	664
Total	25,903

^{*}Includes courses offered at Teachers College.

PROPORTION OF COLUMBIA COLLEGE GRADUATES GOING FORWARD TO UNIVERSITY WORK, PROFESSIONAL OR NON-PROFESSIONAL, FOR THE FIVE-YEAR PERIOD 1925 TO 1929

	For the Five Years	Afler Gradualion Total	148 148 1278 178 178 178 178 178 179 184 171 143	530 1,178	717	1.895	62	67
	For	By Professional	30 30 14 136 8 328 101	648		İ	:	
		T_{0} 10 T	13 28 28 51 1 1 7 4 37 6	224	165	389	58	w w
	1929	Asier Graduation	51 22 21 22 22 6	103	:	:	:	::
		By Professional Option	88 122 265 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	121		:	:	::
6		InioT	111 112 29 20 22 27 114	292	142	404	65	15
192	1928	After Steadualion	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	115	:	:	:	
2 10		By Professional Option	111 6 772 222 222	147	:	:	:	
192		Graduation Total	5 8 8 2 3 3 3 3 3 3 5 7 5 7 0 7 0 7 0 7 7 7 7 7 7 7 7 7 7 7	220	139	368	62	177
KIOD	1927	opticn After	: : :	0 110	:	:	:	
Z L		By Professional	<u> </u>	119	:	:	:	
XEV	1926	Graduation Total	2 9 1 3 3 31 60 60 13 89 14 33 14 33	240	. 135	37.5	- 64	13 3
IVE-		noildO rollanhard		3 107	:	:	:	
4 3 1		By Projessional	:: ::	3 133	:	:	:	::
X I	٠,	1p10T	2 4 2 9 3 2 1 3 2 1 51 51 51 17 91 91 12 32 9	95 223	. 136	. 359	. 62	91 3
<u> </u>	1925	notito After Graduation			:	:	:	
ONAL		By Projessional	. ::	. 128	_:	:	:	::
NON-FROFESSIONAL, FOR THE FIVE-YEAR PERIOD 1925 TO 1929			A. Graduates going forward to University work Arclitecture. Business. Dentistry Engineering Graduate Faculties. Journalism. Law Medicine. Optometry. Teachers College.	Total	B. Graduates not going forward to University work.	C. Total Graduates	D. Per cent going forward to University work	Note: Item B includes a few graduates going forward to University work as follows: Extension. Summer Session.

A tabulation of graduates of Columbia College for the past five years again proves conclusively that a large majority of them go forward into more advanced study, professional and non-professional, here at the University. The five-year table included in this report completes a survey over a period of fifteen years (see also Annual Reports, 1920, page 252, and 1924, page 298). By a careful check it is shown that since September, 1914 out of 4,467 graduates of Columbia College 2,835 or about 63.5 per cent have entered upon more advanced work at the University in its graduate and professional schools. The School of Law has attracted the largest number, 947, which is about one third of the total going forward into higher university work. The next largest group, 578 in number, entered the non-professional Graduate Faculties; 532 were admitted to the School of Medicine; and 477, to the School of Engineering. The remaining 301 were distributed among the Schools of Architecture, Business, Dental and Oral Surgery, Education, Journalism, and Optometry.

The following summary from the Annual Reports of 1920, 1924, and 1929 shows the proportion of graduates of Columbia College going forward each year for more advanced study in the several schools of the University.

Year	P	er cent	Year	Per cent
1915		65 I	923	 . 59
1916		61 I	924	 . 63
1917		66 I	925	 . 62
1918		67 I	926	 . 64
1919		60 I	927	 . 62
1920		69 I	928	 . 65
1921		68 I	929	 . 58
1922		66		

It is not definitely known how many others have gone outside for advanced work after graduation. However, information is available showing that in the past five years 71, or about 4 per cent, have been permitted to enter other medical schools in the exercise of the professional option.

The retirement of Miss Annie F. Currier on June 30 is reported with regret. She leaves with a fine record of thirty-

five years of active service in this office. Our highest esteem and best wishes follow her.

The bulk of the routine has been carried on by the regular staff, though temporary helpers have been used in large numbers from time to time for registration, for the Summer Session work and for other emergencies. It may be interesting to know that about one hundred extra helpers had to be pressed into service on the last two registration days in July, when 8,300 Summer Session students were enrolled. Much praise is due the members of the regular staff for their faithful and unselfish service during the year. The following is a list of the members of the staff who have been in service during the fiscal year in whole or in part:

Baines, Nancy D. Brick, Violet Brooker, Evelyn Caldwell, Margaret Carroll, Beatrice E. Crane, Arthur S. Currier, Annie F. Dignus, Madeline E. Duck, Helen L. (Home Study) Finan, Gertrude H. Ford, Dr. Charles M. (School of Dental and Oral Surgery) Gaffney, Frank Gillis, Frances M. (resigned) Grof, Jessie Higgins, Nevitt G. (resigned) Hollo, Valerie (resigned) Howe, Grace Jacobus, Elizabeth Van H. Kemple, Marianne (resigned) Kempton, Iva

Law, Mary (resigned) Lindsay, Gladys M. Marsh, Mary (Engrosser) Martens, Viola I. Meylan, Renee Y. (resigned) Mooney, Hester E. (Seth Low Junior College) Most, Dorothy C. Orr, Frederick Patterson, Elizabeth B. (resigned) Pratt, Effie D. (Home Study) (resigned) Reardon, Clarence R. (Evening Clerk) Rossbach, Catherine Scully, Madeline Scully, Margaret Sogaard, Grace Wylie, Martha M. Young, Beatrice M.

The usual statistical material as to enrollment, classification, graduation, etc., is presented in the tables which follow.

TABLE I

REGISTRATION AT COLUMBIA UNIVERSITY IN ALL FACULTIES, DURING THE ACADEMIC YEAR 1928-1929

Resident Students

Faculties	First Year	Second Year	Third Year	Fourth Year	Non-Candidates	Graduate	Total	New Students	Percentage of New Students
Undergraduate Students: Columbia College¹ Barnard College University Undergraduates St. Stephen's College Seth Low Junior College Total Undergraduates	314	244 42 163	318	190 19	78 		1,942 1,144 136 123 385 3,730	420 63 50 385	29.5 37.6 52.9 40.5 100.0 39.9
Graduate and Professional Students: Graduate Faculties². Law. Medicine Engineering Architecture Journalism Business School of Dental and Oral	235 110 54	218 103 46 	177 104 49	103	4 25 1 15	12 1 47 2 18	2,973 648 425 221 104 160 444	1,295 257 114 111 32 108 276	43.6 39.7 26.8 50.2 30.8 67.5 62.2
Surgery: DentistryOral HygieneLibrary Service.OptometryTeachers College*:	187	6			7 3 I	26	184 71 220 45	70 71 170 8	38.0 100.0 77.3 17.8
Education Practical Arts Pharmacy Unclassified Total Conducts and Professional	298	259	111	829 I 2	319 62	2,541 800 1	3,985 1,948 743 222	706 301 163	33.2 36.2 40.5 73.4
al Students Deduct Duplicates4 Total	1,140	829	472	1,007	981	6,580	12,393 204 15,919	5,005	40.4
University Extension At the University Total Deduct Duplicates Net Total Winter and Spring							9.718 25,637 177	5,634	57-9
Net Total Winter and Spring Sessions Summer Session 1928 Total							25,460 14,007 39,467	6,284	44.9
Deduct Duplicates (See Table IV)							2,880 36,587		
II. Non-Residen Students in Home Study cour	t Stud ses (gi	ents in ven w	Home ithout	Study acade	mic cre	edit)	9,282		
III. Other Non-Resident Students in Extramural cours credit)	ses (gi iven w	ven wi ithout	th or acade	withou mic cr	ıt acad edit)	lemic	2,189 664 12,135		

¹ Registration by years in Columbia College is according to the technical classification,

^{**}Registration by years in Columbia Conege is accounting to the electrical classification, based on the amount of credit earned.

**The total 2,973 does not include 6 college graduates in Law who are also candidates for the degree of A.M. or Ph.D. It likewise does not include 834 candidates for a higher degree enrolled in the Summer Session only.

**Does not include 3,345 candidates for a higher degree enrolled in the Summer Session only.

^{*} Does not include 3,345 candidates for a masses of the control of the columbia only.

* 129 College seniors exercising a professional option are included in both the Columbia College total and those of the respective professional schools, distributed as follows: Architecture 8; Business 9; Dentistry 4; Engineering 27; Law 61; Medicine 19; and Optometry 1. The 204 duplicates also include 75 who transferred at mid-year from one school of the University to another.

There are also 6 College seniors not shown above who were exercising the professional option in medical schools elsewhere, as follows: Bellevue 2; Boston Medical 1; Cornell 1; Jefferson Medical 1; and Long Island College Hospital 1.

TABLE II

REGISTRATION BY SESSIONS, 1928–1929

RESIDENT STUDENTS

Faculties	1928 Summer Session	Winter Session	Spring Session	Gross Totals
Undergraduate Students:				
Columbia College ¹	263	1,677	1.681	3,621
Barnard College	123	1,085	1,051	2,259
University Undergraduates	45	8.1	122	251
St. Stephen's College		115	100	224
Seth Low Junior College		308	326	634
Graduate and Professional Students:		_		
Graduate Faculties	1,261	2,509	2,315	6,085
Law	113	644	583	1,340
Medicine		426	420	846
Engineering	59	207	202	468
Architecture	13	95	94	202
Journalism		153	140	308
Business	83	381	362	826
Dental and Oral Surgery:				
Dentistry	2	179	182	363
Oral Hygiene		71	68	139
Library Service	166	203	204	573
Optometry		44	43	87
Optometry. Teachers College { Education	5,291	4,692	4,690	14,673
Pharmacv	I	743	743	1.487
Unclassified University Students	6,572	174	156	6,902
University Extension		7,140	5,928	13,068
Gross Totals	14,007	20,930	19,419	54,356
Duplicate Registrations	:			17,769
Net Total for the Year				36,587

¹ Exclusive of seniors exercising the professional option, included in the totals of the several schools.

TABLE III

PROPORTION OF MEN AND WOMEN FOR THE PAST TEN YEARS, EXCLUSIVE OF
THE SUMMER SESSION AND UNIVERSITY EXTENSION

Year	Men	Per Cent	Women	Per Cent	Total
1919-1920	4,945	54.24	4,172	45.76	9,117
1920-1921	5,316	54.57	4,425	45.43	9,741
1921-1922	5,906	53.93	5,045	46.07	10.951
1922-1923	6,006	51.87	5,572	48.13	11,578
1923-1924	6,797	52.53	6,143	47.47	12,940
1924-1925	7,049	52.64	6,343	47.36	13,392
1925-1926	6,976	52.07	6,422	47.93	13,398
1926-1927	7,130	49.28	7,338	50.72	14,468
1927-1928	7,440	49.07	7.722	50.93	15,162
1928-1929	7.788	48.92	8,131	51.08	15,919

TABLE IIIA

PROPORTION OF MEN AND WOMEN IN UNIVERSITY EXTENSION 1928-1929, EXCLUSIVE OF STUDENTS IN SPECIAL COURSES

	Men	Per Cent	Women	Per Cent	Total
Resident Extramural Home Study	5,296 239 5,442	54.5 10.92 58.63	4,422 1,950 3,840	45.5 89.08 41.37	9,718 2,189 9,282
Total	10,977	51.805	10,212	48.195	21,189

Note: Matriculated students taking courses in University Extension are not included in above.

TABLE IV

DUPLICATE REGISTRATIONS BETWEEN THE SUMMER SESSION OF 1928 AND THE ACADEMIC YEAR 1928-1929 FOR RESIDENT STUDENTS

A. Students of the Summer Session Who Returned in the Winter or Spring Session of 1928-1929

School or Faculty to Which They Returned	Men	Women	Total
Architecture	15	I	16
Barnard		. 119	119
Business	42	12	54
Columbia College	229		229
Dental and Oral Surgery	11		ΙÍ
Engineering	52		52
Graduate Faculties (Political Science, Philos-		l J	
ophy and Pure Science)	250	298	548
Journalism	12	8	20
Law	96	ı	97
Library Service	2	23	25
Medicine	I 2		12
Optometry	6		6
Pharmacy	I	1	1
Teachers College:		1 1	
Education	228	661	889
Practical Arts	56	384	440
St. Stephen's College	2	1	2
Seth Low Junior College	40	1	40
University Extension	111	173	284
University Undergraduates	27	8	35
Total	1,102	1,688	2,880

B. Matriculated Graduate Students of the Summer Session of 1928, Who Did or Who Did Not Return in the Winter or Spring Session of 1928–1929

Faculties	Returned	Did Not Return	Total
Political Science, Philosophy and Pure Science. Education and Practical Arts	4 ² 7 517	834 3,345	1,261 3,862
Total	944	4,179	5,123

TABLE V
CLASSIFICATION OF STUDENTS IN THE SCHOOL OF ENGINEERING

Departments	First Year	Second Year	Third Year	Non- Candi- date	Gradu- ate	Total
Chemical Engineering	10	9	I 2	I		32
Civil Engineering	10	I 2	11	3		36
Electrical Engineering	15	13	15	4	18	65
Industrial Engineering			.	l i	8	9
Mechanical Engineering	14	6	Δ.	7	21	52
Metallurgy	2	1	À	ò		16
Mining Engineering	3	5	3			11
Total	54	46	49	25	47	221

Total includes 27 College seniors exercising a professional option in Engineering as follows: 6 Chem.E.; 5 C.E.; 8 E.E.; 1 E.M.; 6 Mech.E.; 1 Met.E.

TABLE VI

CLASSIFICATION OF CANDIDATES FOR THE DEGREES OF MASTER OF ARTS,

MASTER OF LAWS, MASTER OF SCIENCE, DOCTOR OF PHILOSOPHY

AND DOCTOR OF LAW

A. By Primary Registration

	1928-1929	1927-1928
Political Science, Philosophy and Pure Science ¹	2,961	2,932
Architecture (M.S.)	2	2
Business (M.S.)	134	117
Business (Ph.D.)	25	21
Education and Practical Arts	3,341	3,108
Engineering (A.M.)		I
Engineering (M.S.)	47	42
Journalism (M.S.)	18	15
Law (A.M.)	6	9
Law (LL.M.)	6	5
Law (Jur.D.)	6	7
Library Service (M.S.)	26	36
Medicine (A.M.)		2
Medicine (M.S. Public Health)	I	
Union Theological Seminary (A.M.)	12	
Summer Session (A.M and Ph.D. only)	4.179	3,202
Total	10,764	9,499

¹ Includes 109 officers of the University in 1928-1929 and 107 in 1927-1928.

B. By Faculties, Including the Summer Session

	1928-1929	1927-1928
Political Science, Philosophy and Pure Science	3,795	3.732
Political Science, Philosophy and Pure Science (Students of		
Professional Schools)	0	12
Architecture (M.S.)	2	2
Business (M.S.)	134	117
Business (Ph.D.)	25	21
Education and Practical Arts	6,686	5,510
Engineering (M.S.)	47	42
Journalism (M.S.)	18	15
Law (LL.M.)	6	5
Law (Jur.D.)	6	7
Library Service (M.S.)	26	36
Medicine (M.S. Public Health)	T	J
Union Theological Seminary (A.M.)	12	
Total	10,764	0.400

 $\it Note:$ Candidates for graduate professional degrees registered only in the Summer Session are not included.

C. By Faculties, Omitting Summer Session and Students Registered Primarily for a Degree in the Faculties of Architecture, Business, Journalism, Law, Library Service, Medicine, Engineering and Union Theological Seminary

	1928-1929	1927-1928
Political Science, Philosophy and Pure Science	2,961 3,341	2,932 3,108
Total	6,302	6,040

TABLE VII

SUBJECTS OF MAJOR INTEREST OF STUDENTS REGISTERED FOR THE HIGHER DEGREES (EXCLUSIVE OF THE SUMMER SESSION)

Subjects	Political Science Philosophy and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
Anatomy Anthropology Architecture Bacteriology Biological Chemistry Botany Business Chemical Engineering Chinese Civil Engineering Economics Education and Practical Arts Electrical Engineering English and Compara-	7 17 15 17 42 11 18 239 2 2 174 	2	159						3,341	77 177 22 155 177 422 1700 188 239 2 2 174 3,341 21
tive Literature: Comparative Literature. English. Fine Arts. Geography. Geology. German. Greek and Latin:	587 19 11 42 60									11 587 19 11 42 60
Archaeology. Greek. Latin. History. Indo-Iranian. Industrial Engineering. Journalism. Law (Private). Library Service. Mathematics. Mechanical Engineering Metallurgy. Mineralogy. Mining Music. Pathology. Philosophy. Physics. Physiology. Political Science. Psychology. Public Health Public Law, Comparative Jurisprudence	121 2 2 1 2 15 1 111 102 22 20 205				18	12	26			4 9 9 123 379 3 8 8 18 12 2 2 2 1 1 2 2 1 1 1 1 1 1 1 1
and Government: Government. Public Law Religion. Romance Languages: French Italian Spanish	21 91 12 167 17 81									21 91 12 167 17 81

TABLE VII—(Continued)

Subjects	Political Science Philosophy and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
Science of Languages Semitic Languages:	1									1
Arabic	1 8								• • • • • •	1 8
Czechoslovak Russian	1 4									1 4
Social Science: Social Legislation Social Science	8 25									8 25
SociologyZoölogy	87 56									87 56
Total	2,9791	2	159	47	18	12	26	I	3,341	6,585

SUMMARY BY DIVISIONS

										
Divisions	Political Science Philosophy and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
								_		
Ancient and Oriental				ļ		1		ĺ		1
Languages	151									151
Architecture		2								2
Biology	160									160
Business	11		159	1						170
Chemistry	239									239
Education and Practical				1	1			l	1	1
Arts									3,341	3,341
Engineering				47			<i>.</i>			72
Fine Arts	19									19
Geology and Mineralogy				l						54
History, Economics,				1					1	l '
Public Law and So-				ŀ			l			
cial Science	805									805
Journalism				l	18					18
Law (Private)						12				12
Library Service							26			26
Mathematics and Phys-				İ						
ical Science				 .						223
Medicine					l <i>.</i> .			1		1
Mining and Metallurgy	1				l			1		4
Modern Languages and				Į	ł		1			
Literatures	928			1	1					928
Music	15			l .						15
Philosophy, Psychology										
and Anthropology	345					<i>.</i>				345
	1									
Total	2.9791	2	159	47	18	12	26	I	3,341	6,585
	1		1	1 ''		1	1	1		

¹ Includes 6 students primarily registered in the School of Law.

RESIDENCE OF STUDENTS (EXCLUDING SUMMER SESSION AND STUDENTS IN SPECIAL COURSES IN TABLE VIII

				-		-	° ∏–	NIN	UNIVERSITY		EXTENSION)	ISIO	(Z)		-	-	-	<u> </u>	-				
								_									38			Cnt	versity	University Extension	Ston
1928-1929	5891109	ron	Medicine	Engineering	Archilecture	Journalism	Dentistry	Oral Hygiene	Graduale Faculties	University Under graduales	Library Service	<i>К</i> 11әш014 <i>0</i>	Barnard	Education and Practical Arts	Рһаттасу	obule bohiesedon U	St. Stephen's Colle	College	1 _{D10} T	Resident	Ехігатига	Home Study	$T_{olo}T$
UNITED STATES North Atlantic Division	121 090 009 009 1	200	36.3	1	1	28071085		- 3	2 303	25	ļ	,	200 1 1 000 1 8 2 3 2 2 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	863	1 2	;		- 2	100	ł	990	200	386
:	56.	3	200			3	3	2				ţ	600.	50010	5	,		5	705	*/o:	000	3,00,0	0.00
Connecticut	33	10	14	4	-	9	12	. It	43	:	4	7	36	223	13	3		-	421	205	423	308	936
Maine	4	:	3	:	:	ı	:	<u>:</u>	21	:	4	1	а	89	Ė	:	-	:	901	21	:	73	94
Massachusetts	22	4	٥	3	:	6	Ŋ	1 2	40	7	7	:	20	171	4	3	10	:	307	93	:	305	398
New Hampshire	9	:	н	H	:	:	:	÷	80	:	3	:	I	24	:	7		:	48	9	:	35	41
New Jersey	217	63	19	17	0		37	4	224	7	11	8	131	734		ΙΙ	12	<u>-</u> -	1,643 I	1,080	811	880	2,771
New York	1,366	201	292	143	64	60 20	207 170	0 41	1,845	114	63	37	781	2,213 618		811	57 3	385 9,	9.044	7,516	532	3,283	11,331
Pennsylvania	45	61	11	3	I	13	22	1 2	97	71	12	:	32	359	7	4	10	:	637	133	200	905	1,238
Khode Island	61	01	:	:	:	7		<u>:</u>	25	н		:	:	20	÷	-	-7	:	41	6	:	75	84
Vermont	-	н	н	:	н	: N	:	<u>:</u>	0	:	н	:	71	41	÷	:	: H	:	9	II	:	18	29
New York City	100	420	420 178	901	47	38 10	161 153	3 31	1.566	102	34	31	583	583 1.305 510 106	510	90	10	385 6.	6.766 6.534	534	40	40 2,263	8.837
(42.303 per cent)											,		,										
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1 Exclusive of seniors in Columbia College exercising the professional option, included elsewhere in this table.

¹ Transfers at midyear.

² Exclusive of University Extension.

TABLE VIIIA

THE PERCENTAGE OF STUDENTS FROM THE SEVERAL GEOGRAPHICAL DIVISIONS DURING THE PAST TEN YEARS (EXCLUSIVE OF UNIVERSITY EXTENSION AND SUMMER SESSION)

1927- 1928 1929	76.19 76.94								
1926- 1927	75.40	4.00	3.37	9.38	3.13	0.39	4.27	40.24	59.76
1925- 1926	76.82	3.88	3.29	8.76	2.67	0.35	4.23	40.25	59.75
1924-	75.45	3.88	3.24	9.27	2.84	0.35	4.97	37.74	62.26
1923- 1924	76.08	4.13	3.10	9.22	2.65	0.42	4.34	40.79	59.21
1922-	75.17	4.07	3.18	9.70	2.99	0.50	4.38	41.06	58.94
1921– 1922	74.93	3.05	3.23	6.63	3.04	0.47	5.05	40.40	29.60
1920 1921	73.18	4.03	3.95	9.47	3.36	99.0	4.75	41.76	58.24
1919– 1920	72.84	4.62	3.05	9.92	3.26	0.53	5.18	40.22	59.78
	North Atlantic Division	South Atlantic Division	South Central Division	North Central Division	Western Division	Insular Territories	Foreign Countries	New York City	Out of town

TABLE IX DEGREES AND DIPLOMAS GRANTED, 1928-1929

		Men	Women	Total
.]	Degrees conferred in course:			
	Bachelor of Architecture	13	I	1.4
	Bachelor of Arts (Columbia College). Bachelor of Arts (Barnard). Bachelor of Arts (St. Stephen's College). Bachelor of Literature. Bachelor of Science (Business). Bachelor of Science (Dentistry). Bachelor of Science (Library Service). Bachelor of Science (Optometry). Bachelor of Science (Plarmacy). Bachelor of Science (Plarmacy). Bachelor of Science (Practical Arts and Education). Bachelor of Science (Engineering).	389		389
	Bachelor of Arts (Barnard)		255	255
	Bachelor of Laws	19 162	I	163
	Bachelor of Literature	23	25	48
	Bachelor of Science (Rusiness)	42	20	62
	Bachelor of Science (Dentistry)	28		. 28
	Bachelor of Science (Library Service)	16	133	149
	Bachelor of Science (Optometry)	6		É
	Bachelor of Science (Pharmacy)	7	1	8
	Bachelor of Science (Practical Arts and Education)	48	462	510
	Bachelor of Science (Engineering)			4
	Bachelor of Science (University Course)	20	8	28
	Chemical Engineer	7		
	Civil Engineer	9		9
	Electrical Engineer	9		Ğ
	Mechanical Engineer			
	Metallurgical Engineer	4 2		
	Doctor of Denta! Surgery	25		2
	Doctor of Medicine	91	16	10
	Doctor of Philosophy	127	63	190
	Doctor of Philosophy. Master of Arts (Political Science, Philosophy and Pure Science)		-5	
	Pure Science)	287	336	62
	Master of Arts (Education and Practical Arts)	495	1,204	1,69
	Master of Arts (Union Theological Seminary)	2	I	
	Master of Laws	I		
	Master of Science (Engineering)	39		39
	Master of Science (Architecture)	1		
	Master of Science (Business)	36	5	4
	Mostor of Science (Journalism)			
	Master of Science (Journalism)	4	7	-
	Master of Science (Journalism) Master of Science (Library Service) Master of Science (Education and Practical Arts)	4 1	11	1
	Master of Science (Library Service)	í	1 I 29	I :
	Master of Science (Library Service)	í	11 29 9	1 2 11
Dedu	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates ¹	í	29 9 2,587	11 20 11 4,64
edu	Master of Science (Library Service)	102 2,060	11 29 9	11 20 11 4,647
	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. to Duplicates! Total individuals receiving degrees in course	102 2,060 18 2,042	29 9 2,587	11 4,64; 4,62;
	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course	102 2,060 18 2,042	29 9 2,587	11 4,64; 2; 4,62;
	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course	102 2,060 18 2,042	29 9 2,587	11 4,64; 2; 4,62;
	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course	102 2,060 18 2,042	29 9 2,587	11 4,64; 4,62;
	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy.	102 2,060 18 2,042 2 1 3 5	29 9 2,587	11 4,64, 2, 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course	102 2,060 18 2,042	29 9 2,587	11 4,64, 2, 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy Total. Certificates and Teachers College Diplomas Granted:	102 2,060 18 2,042 2 1 3 5	29 9 2,587	11 4,64, 2, 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. Ict Duplicates! Total individuals receiving degrees in course Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University	102 2,060 18 2,042 2 1 3 5	29 29 2,587 7 2,580	11 20 11 4,64; 20 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension).	102 2,060 18 2,042	29 9 2,587	11 20 11 4,64; 20 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension).	102 2,060 18 2,042	29 29 2,587 7 2,580	11 20 11 4,64; 4,62;
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension)	102 2,060 18 2,042	29 29 2,587 7 2,580	11 20 11 4,64; 4,62;
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension).	102 2,060 18 2,042	29 29 2,587 7 2,580	11 24,644 4,644 4,622
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism.	1 102 2,060 118 2,042 2 1 3 5 11	29 29 2,587 7 2,580	11 24,64,64,11 4,64,64,11 2,4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension).	1 102 2,060 18 2,042 2 1 3 5 11 1 10	11 29 29 2,587 7 2,580	1 2 2 1 1 4,64 4,62 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension).	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	11 29 29 2,587 7 2,580	1 2: 4:64: 4:64: 4:62: 4:62: 4:62: 11
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Contometry.	1 102 2,060 18 2,042 2 1 3 5 11 1 10	11 29 2,587 7 2,580	11 24 24 11 11 4,64; 24,622 4,622
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Contometry.	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	11 29 9 2,587 7 2,580	1 22 11 11 4,64 2 4,62 4,62
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Oral Hygiene Certificate in Oral Hygiene Certificate in Oral Hygiene Certificate in Scretarial Studies (University Ex-	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	11 29 29 2.587 7 2.580 1	1 2: 4: 64: 2: 4: 62: 4
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Oral Hygiene Certificate in Oral Hygiene Certificate in Oral Hygiene Certificate in Scretarial Studies (University Ex-	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	11 29 2,587 7 2,580	1 2: 4: 64: 2: 4: 62: 4
i. 1	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Oscience in Science (University Extension). Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business).	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	11 29 29 2.587 7 2.580 1	11 24 11 4,644 12 4,642 11 11 4,644 11 11 11 11 11 11 11 11 11 11 11 11 1
i. 1	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College.	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2	1 1 29 2.587 7 2.580 1 1 1 1 1 1 67 25	11 24 11 4,644 12 4,642 11 11 4,644 11 11 11 11 11 11 11 11 11 11 11 11 1
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College.	1 102 2,060 118 2,042 2 1 3 5 11 1 10 2 2	1 1 29 2.587 7 2.580 1 1 1 1 1 1 67 25	I: 2: 11
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Elonorary Degrees: Doctor of Laws. Doctor of Laws. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College. Bachelor's Diploma in Education. Master's Diploma in Education.	1 102 2,060 118 2,042 2 1 3 5 11 1 10 2 2	1 1 29 2.587 7 2.580 1 1 1 1 1 1 1 1 67 25 4	I 2 2 1 1 1 4.64.4 4.62 2 4.62 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
.]	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Science. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College.	1 102 2,060 118 2,042 2 1 3 5 11 1 10 2 2	11 29 2,587 7 2,580 1 1 1 1 1 1 1 1 1 4 5 4 4 1 1 4 8 1 1 4 8	I: 2: 11
2. (Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Clonorary Degrees: Doctor of Laws. Doctor of Laws. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate in Company of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in George Science (University Extension). Certificate in George Science (University Extension). Certificate in Secretarial Studies (University Extensions). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College. Bachelor's Diploma in Education. Master's Diploma in Education. Total.	1 102 2,060 188 2,042 2 1 3 5 11 1 10 2 2 36 36 4 10 184 247	1 1 29 9 2.587 7 2.580 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
·	Master of Science (Library Service). Master of Science (Education and Practical Arts). Pharmaceutical Chemist. Total. ct Duplicates! Total individuals receiving degrees in course. Elonorary Degrees: Doctor of Laws. Doctor of Laws. Doctor of Science. Doctor of Science in Pharmacy. Total. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension). Preliminary Certificate in Business (University Extension). Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism. Certificate in Library Service (University Extension). Certificate in Optometry. Certificate in Optometry. Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (University Extension). Certificate in Secretarial Studies (School of Business). Certificate of Seth Low Junior College. Bachelor's Diploma in Education. Master's Diploma in Education.	1 102 2,060 18 2,042 2 1 3 5 11 1 10 2 2 36 36	11 29 9 2.587 7 2.580 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I: 2: 11

1 Distributed as follows: A.B. and B.S.Bus., 2 men; M.D. and A.M., 1 man; LL.B. and A.M., 1 man; B.S. (Teachers College) and A.M., 3 men, 7 women; B.S. and Engineering degrees, 10 men; B.S. (Pharmacy) and Ph.Ch., 1 man.

§ In addition to those noted in Note 1 (25, 18 men and 7 women) the following duplications occur: (678, 180 men and 498 women) B.S. and Teachers College diplomas, 8 men, 137 women; A.M. and Teachers College diplomas, 172 men, 361 women.

TABLE X

MAJOR INTEREST OF RECIPIENTS OF HIGHER DEGREES 1928-1929, EXCLUSIVE OF THE MASTER'S DEGREE IN EDUCATION, PRACTICAL ARTS AND UNION THEOLOGICAL SEMINARY

Subjects of	L	L.M.	A	.M.	P	h.D.	Λ	1.S.	7	otal
Major Interest	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Anthropology Architecture Bacteriology Biological Chemistry.					1	5	I		2 I 2 I	5
Botany Business Chemical Engineering. Chemistry Chinese					3	12	36	5	36 11 61 2	7 5 28
Economics Education and Prac-			32	7	15 50	I 25			47 50	8 25
tical Arts Electrical Engineering. English English and Comparative Literature		• • • • • • •	44	97	I	2			18 45	97
Fine Arts		• • • • • • •	1 3 7	i 6					1 7 8	2 I 6
Classical Philology Greek Greek and Latin Latin History		• • • • • • • •	II	1 29		I				2 I I 29 44
Journalism Law (Private) Library Service Mathematics Mechanical Engineer-	I						 I	7 1	4 1 1 12	7 11 16
ing	• • • • •			••••		• • • • • • •			21	
Metallurgy Music. Pathology Philosophy Physics. Physiology Psychology			1 1 8 7 1	3 I I 28	 I 3	2			2 I 1 II 9 2	5 1 2
Public Law, Compara- tive Jurisprudence and Government: Public Law			23	14					28	14
Romance Languages: French Italian Romance Languages	• • • • •		9	20	• • • • •		• • • • •	• • • • • • •	9	20
(no specialization) Spanish Semitic Languages Slavonic Languages			4 _I	14	4 i	2			4 4 1 1	14
Social Science: Social Science Sociology Zoölogy			1 8 5	3 24 3	1 4 4	2			2 12 9	4 24 5
Total	I		287	336	127	63	81	23	496	422

TABLE XI

CLASSIFICATION OF STUDENTS ATTENDING ONE OR MORE COURSES OF INSTRUCTION IN THE VARIOUS DEPARTMENTS DURING THE WINTER AND SPRING SESSIONS (EXCLUDING BARNARD COLLEGE, TEACHERS COLLEGE, THE COLLEGE OF PHARMACY, ST. STEPHEN'S COLLEGE AND UNIVERSITY EXTENSION)

				_											
1928–1929	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Undergraduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Botany Business:	7 22 129 17		102	10	104		3			 59	 8		9 44 2 12 31 3 47	7 I 2 5	67 129 155 173 198 3 77
Accounting Advertising Advertising Agriculture Banking Bookkeeping Business English Business Policy Economics Finance Geography Industrial Relations Insurance Law Marketing Office Machinery Real Estate Salesmanship SecretarialCorrespondence Statistics Stenography Transportation Typewriting Typography Chemical Engineering Chemistry Chinese Civil Engineering Contemporary Civilization Dentistry:	8 2 13 3 25 25 7 7 7 2 2 5 39 9 1 14 5 2 9			23 23 2 3 2 3 2 3 2 3 2 3 3 2 3 3 3 3 3		4 · · · · · · · · · · · · · · · · · · ·	52 22 2577 4 4 155 194 279 104 22 42 124 117 4 163 35 30 31 31				1 1 1 1 1 50	2388	266	44 11 11 11 11 11 11	5 4 1566 201 350 104 27 48 148 131 4 18 15 160 53 60 94 1,163 22 1144 530
Crown and Bridgework Dental Histology and Embryology Histology Operative Dentistry Oral Anatomy Oral Diagnosis. Oral Hygiene Oral Surgery Orthodontia Pathology Periodontia										57 57 57 173 116 90 31 116 57					57 57 57 173 116 90 31 116 57 31 26

TABLE XI—(Continued)

1928–1929	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Undergraduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Department Preventive Dentistry Prosthetic Dentistry Theory and Practice Therapeutics Dermatology Diseases of Children Economics Education and Practical Arts Electrical Engineering. Engineering Drafting English and Comparative Literature:	545 43 3 80		103	 I		6	777 6			173 26 26	12 4	98	223 291 12	18	59 173 26 26 103 207 10 983 365 187
Comparative Literature. English Fine Arts. General Honors. General Science. Geography. Geology and Mineralogy: Geology.	1,281 217 67 126			I			52			ŀ	76 4 1 1 6	343	602 60 23		326 2,436 283 68 3 155
Mineralogy Germanic Languages: Dutch German Gothic Norwegian	334	l		3	l		···6		l		3 14	90	18 3 102 6 1	 1 8 1	558 7
Greek and Latin: Classical Archaeology Classical Civilization. Classical Philology Greek Latin. History History of Science. Hygiene. Indo-Iranian:	16 12 35 525 57 2	 I		· · · · · · · · · · · · · · · · · · ·		 I	10		 I		3 1 28 2	128	6 16 29 109 459 3 9	 1 4 3 ²	6 16 16 46 149 1,184 63
Indo-Iranian. Turkish. Industrial Engineering. Japanese. Journalism. Law (Private). Library Service. Mathematics.	16 	648		27	17		10 2 6	5 220			 I	98	23 1 7 1 9 7 2 175 5	2 2 8	26 3 44 1 18 672 228 1,049 169
Mechanical Engineering. Mining and Metallurgy: Metallurgy. Mining. Music. Neurology. Obstetrics and Gynecology. Ophthalmology. Orthopedic Surgery. Oto-Laryngology. Pathology.	108	I	314 207 207 103 104 102	110 12 			6			57	2		8 5 34 44 3 3	I	177 17 152 358 207 207 103 103 107

TABLE XI—(Continued)

					_		_								
1928-1929	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Undergraduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Department															
Philosophy	1,188						4 4					79	2		661 2 1,216
Mechanics	7			58	28								1		94
Optometry Physics	350	: : :		80	· · · ·				45		33		1 2 O		47 736
Physiology	22		108						3	59	7	77	29		228
Practice of Medicine			310	;				• • •	• • •				· · ·		310
Psychology	280			3		I	12				22	114	254	8	309 695
Public Law, Comparative Jurisprudence and Gov- ernment: Comparative Jurispru-															
dence						٠٠,							2		2
Government	224	133				30	7				15	75	124	7 20	458 500
Public Health			103							26			231		120
Religion	26		• • •		• • •				• • •		2				28
Celtic	1									l		l	3	Ţ	5
French	778			12		1	19	1			22	126 	245	20	1,224
Italian	35	• • •		• • •	٠	• • •		• • •	• • •		6		40	2	83
Science of Language	15												7		317
Camillia I amous con.	_									l	1			, ,	
Arabic		• • •			• • •				• • •				8	4	12
Ethiopic														1	1
Hebrew						• • •			• • •				4	1	5
Semitic Syriac													1 1	-	6
Slavonic Languages:	Į.	l	1 1								ŀ	1	ľ		·
Czechoslovak					• • •	• • •	· · ;		٠				2		2
Hungarian Polish Russian.	I	:::											2		3
Russian	43		'		• • •								23	2	68
Social Science:		l	l			т.							4	т	6
Social Economy Social Legislation													43	- 1	47
Sociology	151				٠	• • •	3				20	87	167	23	451
Social Legislation. Sociology. Statistics. Surgery. Teachers College Biology. Teachers College Fine Arts. Teachers College Music. Teatiles. Urology. Teachery			309									°			309
Teachers College Biology	I			• • •	• • •	:					1				2
Teachers College Music	3				• • •		I								4
Textiles	ļ ¹						· · ·				::::			:::	I
Heology	1	l	103	۱ ا										۱ ا	103
Zoölogy	234	l	"							l	-	1	0 -	11	567

TABLE XII

AGGREGATE ATTENDANCE IN ALL COURSES, 1928-1929 (EXCLUDING COURSES IN THE SCHOOL OF MEDICINE, SCHOOL OF DENTAL AND ORAL SURGERY, SUMMER SESSION, UNIVERSITY EXTENSION, TEACHERS COLLEGE, BARNARD COLLEGE, COLLEGE OF PHARMACY AND ST. STEPHEN'S COLLEGE)

1928-1929	Number of Half-Year Courses	Number of Registrations
Department		
Anthropology	* 8	49
Architecture	50	926
Astronomy	5	205
Botany	34	195
Accounting	20	555
Advertising	5	66
Agriculture	3	10
Banking	18	563
Business Policy	2	267
Economics	13	611
Finance	11	493
GeographyIndustrial Relations	19	413
Insurance	4	23 61
Law	7 5	222
Marketing	11	188
Statistics	4	158
Stenography and Typewriting	2	30
Transportation	7	52
Chemical Engineering	20	271
Chemistry	83	2,599
Chinese	9	49
Civil Engineering	26	280
Economics	4 44	1,042
Electrical Engineering.	34	1,954
Engineering Drafting	7	159
English and Comparative Literature:	•	
Comparative Literature	I 2	512
English	95	5,254
Fine Arts	19	526
General Honors	4	134
Geology and Mineralogy: Geology	27	485
Mineralogy	37 9	72
Germanic Languages:	9	/2
Dutch	1	6
German	34	885
Gothic	1	10
Greek and Latin:		
Classical Archaeology	1	8
Classical Civilization	2 2	27
Greek	15	27 74
Latin	10	332
History	60	2,288
History of Science	4	125
Indo-Iranian:	•	
Indo-Iranian	8	34
Turkish	4 8	6
Industrial Engineering		63
Journalism	40	1,193
Law (Private)	53	5,073

TABLE XII—(Continued)

1928–1929	Number of Half-Year Courses	Number of Registration.
Department		
Mathematics	43	1,6.12
Mechanical Engineering	48	760
Mining and Metallurgy:	·	
Metallurgy	25	200
Mining	16	53
Music	19	408
Philosophy	50	1,001
Physical Education	8	2,6.10
Physics, Mechanics and Optometry:		
Mechanics	3	140
Optometry	18	366
Physics	49	1,512
Psychology	42	927
Public Law, Government and Comparative Jurisprudence:		
Comparative Jurisprudence	1	3
Government	24	534
Public Law	23	738
Religion	2	30
Romance Languages and Literatures:		_
Celtic	2	6
French	46	2,274
Italian	16	115
Romance Philology	1	I
Spanish	19	464
Science of Language	6	35
Semitic Languages:		
Arabic	4	18
Assyrian	2	5
Ethiopic	I	I
Hebrew	2	8
Semitic	I	2
Syriac	4	9
Slavonic Languages:		1
Russian	7	80
Social Science:		
Social Legislation	4	71
Social Science	I	1
Sociology	13	611
Statistics	18	369
Zoölogy	42	1,036
Total	1,499	47,621

TABLE XIII

ALL STUDENTS IN UNIVERSITY EXTENSION CLASSIFIED ACCORDING TO FACULTIES—RESIDENT AND NON-RESIDENT

	Resident	Extra- mural	Special	Home Study	Total
Non-matriculated:					
Columbia	9,617	2,189	664	9,282	21,752
Teachers College (exclusively)	101	1			101
Matriculated:		l		ĺ	
Columbia College	481				481
Barnard College	42				42
Seth Low Junior College	90				90
University Undergraduates	107				107
Graduate Faculties	1,637				1,637
School of Law	III				111
Engineering	47				47
Architecture	57			• • • • • • • •	57
Journalism	61				61
Business	308				308
Teachers College	950			,	950
Library Service	27				27
Unclassified University	132				132
Total	13,768	2,189	664	9,282	25,903

TABLE XIV UNIVERSITY EXTENSION

AGGREGATE ATTENDANCE ON COURSES, RESIDENT, EXTRAMURAL AND HOME STUDY

1028-1020	N	umber o	f Cours	es	Nun	ber of I	Registrat	ions
1920 1929	Resi- dent	Extra- mural	Home Study	Total	Resi- dent	Extra- mural	Home Study	Total
Anthropology	10			10	170			170
Architecture	53			53				1,344
Art			1	I			407	407
Astronomy	3		1	4	86		24	110
Biblical Literature			1	i			43	43
Biology			I	1			31	31
Botany	4		I	5	8.4		33	117
Bulgarian	i			I	i			i
Business:								
Accounting	29	1	5	35	1,255	12	500	1,857
Actuarial Mathematics			4	4			20	20
Administration and Organi-							í I	
zation			3	3			280	280
Advertising	2.4			24	870			870
Agriculture	10		5	15	212		48	260
Banking	9		I	10	309		370	679
Bookkeeping	4		1	5	123		117	240
Economics	4		2	6	134		17	151
English (Business)	4		I	5	301		70	371
Finance	9		ľ	10	726		. 1	727
Geography	13		1	14	187		26	216
Industrial Relations	2			2	20		<i>.</i> 1	20
Insurance	9		1	10	151		70	221
Investments			1	I			11	11
Law (Business)	6		I	7	306		213	600
Marketing	11		1	12	410		39	458
Mathematics (Business)			2	2			55	55
Office Machinery	1			1	21			21
Real Estate	6		l	6	355			355
Salesmanship	8			8				150
Secretarial Correspondence	4		1	5 8	105		83	188
Statistics	7		1	8	169		37	206
Stenography	19			19				514
Transportation	2			2	41			41
Typewriting	1.4		1	15	409		36	445
Typography	2			2	100			100
Chemical Engineering	I		I	2	9		74	83
Chemistry	19		I	20	705		78	783
Civics			I	I			26	26
Civil Engineering	4			4	103			103
Clothing	4			4				31
Comparative Literature	10	1	1	12	436	29	11	476
Cookery	2			2	25			25
Czechoslovak	4			4				5
Drafting	13		3	16	214		188	402
Drawing	5			5				164
Economics			I	17	969		149	1,118
Education		36		36		1,934		1,934
Electrical Engineering	8			8				172
English		6	20	152	6,467		4,112	
Fine Arts	13			13				191
French	58	1	II	70	1,973			2,419
General Science	I			I	27			27
Geology				5				80
German			4	23			225	934
Government		2		15	512			531
Greek			7	I 2	29		41	70
History	38	5	11	54	1,876		703	2,768
Church History			3	3	1		15	15
	F	1	I	I	1	l .	1	I

TABLE XIV—(Continued) UNIVERSITY EXTENSION

1028-1020	Λ	umber o	of Cours	es	Nun	iber of l	Registrat	ions
1920-1929	Resi- dent	Extra- mural		Total	Resi- dent	Extra- mural		Total
Hungarian	4			4	6			6
Hygiene	2			2	19			19
Indo-Iranian	I			1				5
Industrial Engineering	4			4	87			87
Italian	Į 2		4	16	275		92	367
Japanese	I			1	I			I
Latin	II		7	18	86		425	511
Law	5			5	196			196
Library Service	17		11	28	286			321
Mathematics	20	2	11	42	1,079	18	1,357	2,454
Metalworking	2	1		2	ő			9
Mineralogy	2	1		2	42			42
Music	25		1	26	376		78	454
Neurology	2			2	88		1	88
Norwegian	1			1	3			3
Persian	2			2	2			2
Philosophy	21		7	28	608		79	777
Phonetics	10	3	l	13	170	37		216
Photoplay Composition	3	l	I	4	49		25	74
Physical Education	8			8	107			107
Physical Geography			т т	ī			97	97
Physical Training	2		1	2			9,	18
Physics	6		т Т	7	206		41	247
Physiology	2		•	2	98			98
Polish	3			3	5			5
Portuguese	3		1	I	,		8	8
Psychology	34	3	4	41	1,830		567	2,470
Public Health	i	l	2	3	2,050		27	36
Public Law	7		-	7	424		~'	424
Religion	3	1		4	30	28		58
Russian	11	1 1		11				56
Scouting	**			ī			163	163
Slide Rule			ī	ī			38	38
Social Economy	4		•	4				40
Social Science		1		Ĭ		39		39
Sociology	14	2	I	17	545	36	34	615
Spanish	35		ا أ	44			244	1,055
Structural Mechanics	4		,	4				86
Teachers College Chemistry	ī			ĭ	1			I
Teachers College Fine Arts	22			22	100			100
Teachers College Hygiene	3			3	30			30
Teachers College Music	7			7	25			25
Textiles	6			6	79			79
Zoölogy	3			3	185			185
Zoology					103			103
Total	962	64	165	1,191	31,538	2,569	11,989	46,096

TABLE XV

STUDENTS IN SPECIAL COURSES IN UNIVERSITY EXTENSION (NOT INCLUDED IN OTHER TABLES)

Course	Winter Session	Spring Session	Both Sessions	Total
Advanced Dentistry		34		34
Advanced Medicine		15	20	97
Agriculture Dramatic Arts		19		19
Library Service		4 3		12
Public Health	1	20		20
Recreation Course (Barnard)	101	20	82	203
Spoken Language	141	63	60	264
Swimming (Barnard)	3			3
Total	315	187	162	66.4

 $\begin{array}{c} \text{TABLE XVI} \\ \text{AGE, PREPARATION AND OCCUPATION OF STUDENTS REGISTERED IN} \\ \text{HOME STUDY} \end{array}$

A. Age	Men	Women	Total	B. Preparation	Number
Under 15	3	8	11	Part Grammar School	78
15 to 19	151	104	255	Graduates of Grammar School	445
20 to 24	893	482	1,375	Part High School	1,496
25 to 29	1,061	670	1,731	Graduates of High School	1,537
30 to 34	946	654	1,600	Part College	1,203
35 to 39	694	556	1,250	Graduates of College	1,571
40 to 44	452	415	867	Holders of Higher Degrees	139
45 to 49	272	257	529	Part Business School	347
50 to 54	166	1.47	313	Graduates of Business School	508
55 to 59	95	101	196	Part Professional School	29 I
60 to 64	57	54	111	Graduates of Professional School	478
65 to 69	23	17	40	Part Normal School	79
70 to 74	11	8	19	Graduates of Normal School	163
75 or over	7	8	15	Undetermined	947
Undetermined	611	359	970		- /-
Total	5,442	3,840	0.282		0.282

C. OCCUPATIONS

Accountant		Housewife	826	D-Vissanian	
	244			Policeman	9
Actor and Actress	18	Industrial Worker	1,022	Religious Worker	88
Agricultor	45	Lawyer	126	Social Worker	54 26
Architect	21	Military Officer and		Statistician	26
Artist	50	Soldier	28	Student	190
Business Men (Ex-		Musician	56	Teacher	587
ecutives, etc.)	1,028	Naval Officer and		Technician	53
Chemist	50	Sailor	35	Writer	98
Chiropractor	8	Nurse (Registered)	413	Undetermined	1,443
Clerk	2,388	Optometrist	8		
Dentist	46	Osteopath	6		
Domestic	125	Pharmacist	23		
Fireman	10	Physician	158	Total	0.282

SUMMER SESSION, 1929

Classification	Number	Per- centage
A. STUDENTS CLASSIFIED ACCORDING TO SEX Men	4,219	30.6
Women	9,598	69.4
Total	13,817	
B. STUDENTS CLASSIFIED AS OLD AND NEW Previously registered	7,745 6,072	56.1 43.9
Total	13,817	,0 2
c. Students Classified According to Faculties I. Non-matriculated	5,902 7,915	42.8 57.2
1. Columbia a. Columbia College. b. University Undergraduates. c. Seth Low Junior College. 2. Barnard. 3. Engineering. 4. Law. 5. Optometry. 6. Architecture. 7. Political Science. 8. Philosophy. 9. Pure Science. 10. Ph.D. in Education. 11. Business. 12. Journalism. 13. Dentistry. 14. Pharmacy. 15. Teachers College. a. Undergraduates. b. Graduates. c. Unclassified. 16. Library Service. 17. M.S. in Public Health.	222 31 72 105 26 95 1 20 293 692 283 170 67 18 1 1 1,245 3,957 412 203 1	
D. STUDENTS CLASSIFIED ACCORDING TO TEACHING POSITIONS I. Not engaged in Teaching. II. Engaged in Teaching. Elementary Schools. Secondary Schools. Higher Educational Institutions. Normal Schools. Industrial Schools. Principals. Assistant Principals. Supervisors. Superintendents. Special Teachers. Private School Teachers. Librarians. Technical Schools. Vocational Schools. Hospitals. State Inspectors. Private Teachers. Business Schools. Institutes. College Presidents. Deans of Women in High Schools College Deans. Nursery Schools. United States Government Vocational Training Department. Registrars. Vocational Guides. Total I and II.	13,817 4,237 9,580 2,857 3,809 1,060 232 1 480 205 289 206 94 161 41 21 30 82 13 62 14 30 21 29 24 44 30 44 44 41 41 41 41 41 41 41 41	30.7 69.3

Classification	Number	Per- centage
STUDENTS CLASSIFIED ACCORDING TO RESIDENCE		
North Atlantic Division:		
Connecticut	354	
Maine	82	
Massachusetts	340	
New Hampshire	45	
New Jersey* *New York:	905	
Outside of New York City	1,476	
Manhattan and Bronx	1,790	
Queens	229	
Richmond	33	
Brooklyn* *Total, 4,183	655	
Pennsylvania	1,235	
Rhode Island	68	
Vermont	56	
Total North Atlantic Division	7,268	52.6
South Atlantic Division:		
Delaware	42	
District of Columbia	192	
Florida	130	
Georgia	200	
Maryland	314	
North Carolina	322	
South Carolina	164	
Virginia West Virginia	323 194	
Total South Atlantic Division	1,881	13.6
North Central Division:		
Illinois	256	
Indiana	372	
Iowa	184	
Kansas	160	
Michigan	317	
Minnesota	150	
Missouri	250	
Nebraska	102	
North Dakota	31	
South Dakota	35	
Wisconsin	135	
Ohio	802	
Total North Central Division	2,794	20,2
South Central Division:		
Alabama	168	İ
Arkansas	61	
Kentucky	144	
Louisiana	63	
Mississippi	77	
Oklahoma	118	
	136	
Tennessee	266	
Tennessee. Texas. Total South Central Division.	366	8.2

Classification	Number	Per- centag
Western Division:		
Arizona	11	
California	138	i
Colorado	70	
Idaho	10	l .
Montana	11	
Nevada	5	
New Mexico.	5	ļ
Oregon	20	ļ
Utah	20	
Washington	36	
Wyoming	10	ļ
		i
Total Western Division	345	2.5
Insular and Non-Contiguous Territories:		Ì
Canal Zone	10	
Hawaiian Islands	5	i
Porto Rico	38	1
Philippine Islands	10	1
Total Insular and Non-Contiguous Territories	63	.5
Total (United States)	13,484	.,
Foreign Countries:		
Argentina	3	
Austria	ĭ	
Australia	Ĩ	
Brazil	Ī	
Bulgaria	ī	
Canada	139	
Chile	3	
China	37	
Chosen (Korea)	10	
Colombia	I	1
Cuba	30	1
Czechoslovakia	2	
Denmark	2	Ì
France	4	
Germany	15	1
Great Britain	6	
Guatemala	I	į
Haiti	I	i
Holland	I	
Honduras	I	
Hungary	2	
India	8	
Italy	4	
Japan	20	
Palestine	4	
Panama	3	
Persia	3	
Peru	I	
Rumania	1	1
Russia	3	
South Africa	4	1
Spain	6	
Straits Settlements	1	
Sweden	4	
Switzerland	3	
Syria	3	
Uruguay	I	
Venezuela	I	
West Africa	1	
Total	333	2.4

Subjects	Number of Courses	Number of Registration
AGGREGATE ATTENDANCE ON		
Courses:		
Accounting	8	117
Advertising	3	114
Anatomy	1	26
Anthropology	2	25
Archaeology	I	6
Architecture	I 2 2	106
Bacteriology	2	15
Banking	2	46
Biochemistry	5	41
Biology	5	150
Bookkeeping	I	21
Botany	6	50
Business English	I	17
Cancer Research	I	5
Chemical Engineering	3	42
Chemistry	42	583
Teachers College Chemistry	ī	19
Christian Ethics	I I	46
Classical Civilization	I	26
Clothing	12	270
Comparative Literature	4	220
Contemporary Civilization	Ĭ	22
Cookery	9	253
Drafting, Engineering	4	29
Economics	12	296
Education	335	17,350
Electrical Engineering	4	8.4
English	47	1,826
Finance	2	76
Fine Arts.	4	90
Teachers College Fine Arts	30 1	801
French	31	748
Geography	14	1,580
Geology	6	47
German	10	198
Government	3	8 r
Greck	3	29
History	22	1,028
History of Science	2	35
Household Arts	2	25
Household Chemistry	6	40
Household Economics	5	55
House Management	7 1	79
Hygiene	7	433
Industrial Arts	í	433
Institution Management	3	70
Italian	6	73
Journalism	2	30
Latin	18	358
Law	14	243
Library Service	42	1.044
Marketing	I	24
Mathematics	13	524
Music	11	141
Teachers College Music	51	627
Neurology	21	7
New Testament	I	16
Nursing	10	220
Nutrition	4	64
Old Testament	ī	9 8
Parliamentary Law	2	l é

Subjects	Number of Courses	Number of Registration
Penmanship	I	21
Philosophy	7	168
Philosophy of Religion	3	120
Phonetics	2	32
Physical Education	44	1,125
Physics	r 7	192
Physiology	5	70
Practical Theology	3	74
Practice of Medicine	Ī	12
Psychology	15	586
Public Health	Ī	16
Public Law	3	71
Recreation	4	426
Religion	2	26
Religious Education	2	56
Russian	2	8
Secretarial Correspondence	2	10
Social Science	7	179
Sociology	6	101
Spanish	15	307
Speech	5	278
Statistics	2	5.5
Stenography	4	80
Stenotypy	i	6
Textiles	3	26
Typewriting	3	117
Zoölogy	2	46
Total	1,020	33,723

Respectfully submitted,

EDWARD J. GRANT,

Registrar

September 2, 1929

STATISTICS REGARDING THE TEACHING AND ADMINISTRATIVE STAFF FOR THE ACADEMIC YEAR 1928-1929

VACANCIES

By Death, Resignation, Retirement, or Expiration of Term of Appointment, Occurring, Unless Otherwise Indicated, on June 30, 1929

JANET R. AIKEN, A.M., Assistant in English

BENJAMIN R. ALLISON, M.D., Assistant in Diseases of Children

LESLIE O. ASHTON, M.D., Instructor in Diseases of Children

George B. Barbour, A.M., Lecturer in Geology RICHARD H. BARKER, A.B., Lecturer

in English ARTHUR H. BARNES, A.M., Assistant

in Physics EDWARD C. BARRETT, A.M., Assistant

in Chemical Engineering (December 1, 1928)

HINMAN BARRETT, B.S., Assistant Treasurer

JEFFREY H. BARTLETT, M.S., Assistant in Chemistry

ESTHER L. BATCHELDER, A.M., Research Assistant in Food Chemistry ADELAIDE B. BAYLIS, Clinical Assist-

ant in Medicine WALTER A. BELL, M.D., Assistant in

Diseases of Children ALEXANDER BLAIR, A.M., Instructor in History

GEORGE M. BLANK, M.D., Assistant in Medicine

(October 1, 1928) HORACE R. BLANK, Ph.D., Instructor in Mineralogy

(August 1, 1929) FRANCIS H. BOHLEN, LL.B., Visiting

Professor of Law RICHARD W. BOLLING, M.D., Associate in Surgery (Died April 6, 1929)

Lela E. Booher, M.D., Re Assistant in Food Chemistry M.D., Research (October 1, 1928)

SAMUEL BOROFSKY, A.M., Assistant in Mathematics

ROBERT H. BOWEN, Ph.D., Professor of Zoölogy

(Died August 19, 1929) CHARLES A. BRADLEY, B.S., Assistant in Chemistry

ABRAHAM BRAUNSTEIN, M.D., Instructor in Medicine

P. Dewees Browning, E.M., Associate in Mining

ALICE M. B. BURKE, M.D., Instructor in Pathology

(April 1, 1929) GARRY N. BURKE, M.D., Instructor in Tropical Medicine and Surgery Louis Carp, M.D., Instructor in Surgery

Louis Cazamian, B. ès L., French Professor of English OSCAR J. CHASE, JR., D.D.S., Asso-

ciate Professor of Dentistry (November 1, 1929) YAO CHUN CHENG, Ph.D., Assistant

in Chemical Engineering

Leoni Neumann Claman, Assistant in Diseases of Children William C. Clarke, M.D., Professor of Experimental Surgery

ALFREDO COLMO, LL.D., Professor from the Argentine R. GRAHAM COOK, M.S., Instructor in

Chemistry WILLIAM T. COOKE, A.M., Lecturer in Physics

FRANK D. COOP. A.M., Assistant Professor of Philosophy and Psy-chology in St. Stephen's College

GRACE L. COYLE, A.M., Lecturer in **Economics** SYLVESTER R. DALY, M.D., Instructor

in Anatomy Louis Davidson, M.D., Instructor in

Anatomy

BASHFORD DEAN, Ph.D., Honorary Professor of Vertebrate Zoölogy (Died December 6, 1928)
MILDRED L. B. DE BARRITT, A.M.,

Assistant in English

A. GORDON DEWEY, A.M., Instructor in Government GAETANO DE YOANNA, M.D., In-

structor in Surgery NICHOLAS DIETZ, JR., A.M., Assistant

in Chemistry

JOSEPH F. DORAN, M.D., Assistant in Diseases of Children

Donald Douglas, A.B., Lecturer in English

MALCOLM DRESSER, B.S., Assistant in Psychology

EDWARD A. DRUMMOND, M.D., Assistant in Laryngology and Otology (December 15, 1928) N. J. L. DUYVENDAK,

Jan Ph.D., Visiting Professor of Chinese Cora M. Ehrenclou, M.D., In-

structor in Psychiatry

CHARLES ENGLANDER, M.D., Assistant in Neurology

WILLIAM F. FAIR, JR., A.M., Assistant in Chemistry (August 15, 1929)

FRANK M. FALCONER, M.D., Assistant in Medicine

THOMAS L. FANSLER, Jr., A.M., Instructor in English

HENRY C. FENN, A.B., Lecturer in Chinese

John F. Fennelly, A.B., Instructor in Economics

ROBERT H. FIFE, Ph.D., L.H.D., As Associate Dean of the Faculties of Political Science, Philosophy, and Pure Science

MILTON H. FINE, M.D., Instructor in Anatomy

AUDREY S. FIRKINS, A.M., Lecturer in Psychology

HAROLD R. Fox, M.D., Assistant in Diseases of Children

MEYER GOLOB, M.D., Assistant in Medicine

(November 1, 1929)
JAMES GRAY, A.M., Lecturer in

Zoölogy DAVID M. GRAYZEL, Ph.D., Assistant

in Biological Chemistry HERVEY D. GRISWOLD, Ph.D., D.D., Visiting Lecturer in Religion

EMMA H. GUNTHER, A.M., Assistant Professor of Household Arts

GILBERT E. HAGGART, M.D., Instructor in Surgery

ABRAHAM S. HALKIN, A.M., Gustav Gottheil Lecturer in Semitic Languages

H. RANDOLPH HALSEY, A.M., Assistant in Zoölogy

CHARLES E. HAMILTON, M.D., Instructor in Medicine (January 1, 1929)

DOROTHY HAMMOND, A.B., Assistant in Botany

EILIF C. HANSSEN, M.D., Assistant in Urology

ROYAL S. HAYNES, M.D., Clinical Professor of Diseases of Children (December 31, 1928)

ALBERT W. HECKMAN, A.M., Assistant Professor of Fine Arts

BRUCE M. HOGG, A.B., Assistant in Medicine

MIREILLE HOLLARD, A.B., Lecturer in French

Otis H. Holmes, A.M., Instructor in Economics

RANSOM S. HOOKER, M.D., Associate Professor of Clinical Surgery (December 31, 1928) THEODORE S. HOPE,

Jr., LL.B., Assistant in Law

SIGMUND HORWITT, M.D., Assistant in Diseases of Children EDWARD PENDLETON HOWARD, A.M.,

LL.B., Lecturer in Law HAMILTON HOWARD, B.C.S., Lecturer

in Business Administration (November 1, 1929)

GRACE A. HUBBARD, A.M., Associate Professor of English (Died September 21, 1929)

HAROLD A. IDDLES, Ph.D., Instructor in Chemistry

CHARLES R. INCE, A.B., Lecturer in Mining

MIRIAM M. ITTELSON, A.M., Instructor in Anatomy

HAROLD JACOBY, Ph.D., Rutherfurd Professor of Astronomy

(March 1, 1929) Arthur T. Jersild, A.B., Instructor in Psychology

Franklin W. Johnson, A.M., Professor of Education (June 16, 1929)

GILBERT H. JOHNSON, M.D., Assistant in Medicine (February 15, 1929)

J. KELLY JOHNSON, E.E., Instructor in Electrical Engineering

THOMAS Η. JONES, Associate Modeling
DWIN O. JORDAN, Ph.D., Visiting

EDWIN O. Lecturer in Tropical Medicine

ALICE JOY, A.M., Lecturer in Mathematics

WINTHROP N. KELLOGG, A.M., Assistant in Psychology

ARNOLD KOFFLER, M.D., Assistant in Medicine

(January 1, 1929) HENRY A. LADD, B.Litt., Instructor in English

ELIZABETH В. LAWRENCE. Instructor in Fine Arts

WATSON A. LAWRENCE, M.D., Assistant in Diseases of Children

ROBERT J. LEONARD, Ph.D., Professor of Education

(Died February 9, 1929)

CLARENCE I. LEWIS, Ph.D., Visiting Professor of Philosophy

JAMES R. LINCOLN, M.D., Instructor in Surgery

LINN. Assistant in GEORGE Zoölogy

Julia E. Lockwood, M.S., Research Assistant in Food Chemistry (September 15, 1929)

CARL L. LOKKE, A.M., Instructor in History

CHARLES A. LUST, M.D., Assistant in Diseases of Children

MARY E. LYMAN, Ph.D., Lecturer in Religion

EDMOND W. MACDONALD, A.B., Lecturer in Philosophy

CATHERINE J. MCÉNTEGART, A.B., Assistant in Government V. JERAULD McGill, Ph.D., Lecturer

in Philosophy RUSTIN McIntosh, M.D., Associate

in Diseases of Children

JOHN L. MACUMBER, M.D., Assistant in Neurology

Douglas B. Maggs, J.D., S.J.D., Visiting Professor of Law EDWIN G. MANOVILL, M.D., In-

structor in Anatomy RAFAEL A. MARÍN, Assistant Parasitology

MARSHALL, JOSEPHINE Α. Assistant Professor of Household Arts Education

ARTHUR C. MARTIN, M.D., Instructor in Obstetrics and Gynecology

(January 1, 1929) Nicholas N. Martinovitch, Ph.D., Lecturer in Slavonic Languages

HERMAN MARTINSON, M.D., Assistant in Diseases of Children ELEANOR MASON, A.B., Assistant in

Botany ROBERT E. MATHEWS, J.D., Visiting

Professor of Law Brander Matthews, LL.D., Litt.D.,

Emeritus Professor of Dramatic Literature (Died March 31, 1929)

ROBERT MAZET, JR., M.D., Assistant in Pathology (August 31, 1929)

GEORGE L. MEYLAN, M.D., Professor of Physical Education

(April 1, 1929) HENRY A. MOE, B.C.L., Lecturer in Law

ROBERT H. MONTGOMERY, C.P.A., Professor of Accounting (November 1, 1929)

HENRY L. MOORE, Ph.D., Professor of Political Economy

(April 1, 1929) GEORGE NOBBE, A.M., Assistant in English

HERMAN OLIPHANT, J.D., Professor of Law

FERDINAND L. PERRONE, M.D., Instructor in Surgery

JACOB C. PETERS, A.M., Assistant in Physics (January 1, 1929)

CARL A. PETERSON, M.D., Instructor in Anatomy

MIMOSA PFALTZ-FEJOS, Ph.D., search Assistant in Chemistry (February 28, 1929)

MARGARET B. PICKEL, A.M., Assistant in English
THOMAS R. POWELL, LL.B., Ph.D.,
Visiting Professor of Law

MARY A. PRENTISS, A.M., Lecturer

in Economics EDWIN PYLE, M.D., Instructor in

Orthopedic Surgery ALEC RABINOVITCH, M.D., Assistant

in Neurology GEORGIA W. READ, Research Assistant in Physiology

(January 1, 1929) ALGERNON B. REESE, M.D., Instructor in Ophthalmology

KATHERINE C. REILEY, Ph.D., Assistant Professor of Greek and Latin and Associate Director of University Extension

MARK S. REUBEN, M.D., Associate in Diseases of Children

CAMPBELL ROBERTSON, B.S., Assistant in Chemistry JAMES G. ROBILOTTI, M.D., Assistant

in Urology HORACE E. ROBINSON, M.D., Assist-

ant in Diseases of Children JULIAN L. ROGATZ, M.D., Assistant

in Diseases of Children EUGENE F. ROONEY, M.D., Assistant in Diseases of Children

Francis M. Root, Ph.D., Visiting Lecturer in Tropical Medicine ROBERTS RUGH, A.M., Assistant in

Zoölogy CORNELIUS RYBNER, Mus.Doc., Pro-

fessor of Music Retired (Died January 21, 1929) ELMER SCHATTSCHNEIDER, A.M., In-

structor in Government MAXWELL P. SCHUBERT, A.M., In-

structor in Chemistry MARY K. SCRIPTURE, A.B., Assistant

in Neurology JAKOB J. SEDERHOLM, Ph.D., Lecturer in Geology

OLAF J. SEVERUD, Assistant Zoölogy

JOHN P. SEWARD, JR., Assistant in Psychology

ROBERT D. SEWARD, A.M., Instructor Romance Languages in Stephen's College (February 1, 1929)

MARKS S. SHAINE, M.D., Instructor in Medicine (March 1, 1929) JAMES C. SHARP, M.D., Associate Professor of Anatomy and Histology HERBERT SHERMAN, M.D., Assistant in Dermatology WILLIAM D. SHERWOOD, M.D., Assistant in Neurology JOHN SHESTA, C.E., Lecturer in Civil Engineering H. Shelton Smith, Ph.D., Associate Professor of Education RUSSELL GORDON SMITH, Ph.D., Instructor in Sociology (Died June 7, 1929) ROBERT L. SMITLEY, A.B., Lecturer in Finance SIDNEY SOLOMON, A.M., Assistant in Zoölogy WILLIAM A. SQUIRES, D.D.S., Associate Professor of Dentistry (November 1, 1929) Albert M. Stevens, M.D., Associate in Diseases of Children HAROLD M. TERRILL, Ph.D., Associate in Physics PAYSON J. TREAT, Ph.D., Visiting Professor of History GUY B. UPDIKE, A.M., Instructor in Mathematics RENÉ E. G. VAILLANT, Ph.D., Instructor in French HARRY O. VEACH, M.D., Assistant Professor of Physiology HERBERT N. VERMILYE, M.D., As-

sistant in Diseases of Children

ARTHUR L. WALKER, E.M., Professor of Metallurgy

MARGARET H. WARD, A.M., Instructor in Government

Helen Ware, Lecturer in Physical Education

RAYMOND WEEKS, Ph.D., Professor of Romance Philology

(March 1, 1929) JOSEPH L. WEINER, LL.B., Assistant

in Law WILLIAM E. WELD, Ph.D., LL.D., Professor of Economics

CHARLOTTE WILD, Assistant in Zoöl-

Mrs. Edith L. Wile, M.S., Instructor

in Physiology

OPERT H. WILLIAMS, A.M., In-ROBERT H.

JOHN ARTHUR WILSON, Lecturer on the Charles Frederick Chandler Foundation

FREDERICK J. E. WOODBRIDGE, LL.D., Litt.D., As Dean of the Faculties of Political Science, Philosophy, and Pure Science

JAMES H. YOUNG, B.S., Assistant in

Chemistry John J. Young, M.D., Instructor in Medicine

(August 1, 1929) TIMOTHY PHOON YOUNG, A.M., Assistant in Botany

HARRY O. ZAMKIN, Assistant in Diseases of Children

PROMOTIONS

To Take Effect, Unless Otherwise Indicated, July 1, 1929

Name	From	To	Subject
Walter P. Anderton, M.D	 Associate	Assistant Professor	Clinical Medi- cine
ALVAN L. BARACH, M.D	 Instructor	Associate	Medicine
JACOB J. BEAVER, Ph.D		Assistant Professor	Chemistry
SIMON A. BEISLER, M.D	 Assistant	Instructor	Urology
Adolph Berger, D.D.S	 Associate Professor	Professor	Oral Surgery
Adolf A. Berle, Jr., LL.B	 Assistant Professor	Associate Professor	Law
RACHEL BOWLING, A.M	 Assistant	Instructor	Zoölogy
DAVID C. BULL, M.D		Assistant Professor	Surgery
SAMUEL C. BURCHELL, M.D	 Assistant	Associate	Neurology
WENDELL T. BUSH, Ph.D	 Associate Professor	Professor	Philosophy
LESTER R. CAHN, D.D.S	 Instructor	Assistant Professor	Dentistry
MARY L. CALDWELL, Ph.D	 Instructor	Assistant Professor	Chemistry
CORNELIA L. CAREY, Ph.D	 Instructor	Assistant Professor	Botany

Name	From	To	Subject
ARTHUR E. CHRISTY, A.M	Assistant	Instructor Instructor Assistant Clinical Professor	
KENNETH O. CROSBY, S.T.D	Instructor		Oral English
GEORGE E. DANIELS, M.D LEONARD T. DAVIDSON, M.D	Instructor Instructor	Associate	Psychiatry Diseases of Chil- dren
GEORGE DRAPER, M.D	Assistant Professor	Associate Professor	Clinical Medi- cine
R. Parker Eastwood, A.M	Assistant	Instructor	Business Statis- tics
HERBERT O. ELFTMAN, A.M		Assistant Professor	Zoölogy
EARL T. ENGLE, Ph.D	Professor	Associate Professor	Anatomy
Harold A. Fales, Ph.D	Professor	Professor	Chemistry
HERMON W. FARWELL, A.M	Associate Professor	Professor	Physics
Antonio Fernos-Isern, M.D	Assistant Professor	Associate Professor	Hygiene (School of Tropical Medicine)
FREDERICK B. FLINN, Ph.D	Assistant Professor	Associate Professor	Physiology in Industrial Hy- giene
Angus M. Frantz, M.D.	Instructor	Associate	Neurology
VIRGINIA K. FRANTZ, M.D ELBERT K. FRETWELL, Ph.D	Associate	Professor	Surgery Education
BERN B. GALLAUDET, M.D	Professor Assistant Professor	Associate Professor	Anatomy
J. Montgomery Gambrill, A.M	Associate Professor	Professor	History
RUBIN A. GERBER, M.D	Assistant	Associate Associate Professor	Neurology Medicine
GRACE H. GOODALE, A.M			Greek and Latin
WILLIAM CABELL GREET, Ph.D	Instructor		English
CHESTER T. HALLENBECK, A.B LOUIS P. HAMMETT, Ph.D	Assistant	Instructor	
	Professor	Associate Professor	Chemistry
MILTON HANDLER, LL.B		Assistant Professor	Law
Franklin M. Hanger, Jr., M.D	Associate	Assistant Professor	Medicine
JOHN HANNA, A.M., LL.B	Assistant Professor	Associate Professor	Law
THOMAS H. HARRINGTON, C.E	Associate Professor	Professor	Engineering Drafting
LELAND E. HINSIE, M.D	Associate	Clinical Professor	Psychiatry
Lulu Hofmann, Ph.D Leta S. Hollingworth, Ph.D	Lecturer Associate Professor		Mathematics Education
SUSANNE HOWE, A.M J. RAMSAY HUNT, M.D	Assistant Clinical	Instructor Professor	Clinical Neurol-
Albert C. Jacobs, B.C.L	Assistant Professor	Associate Professor	ogy Law

Name	From	To	Subject
Charles L. Janssen, M.D David Stuart D. Jessup, M.D	Instructor Associate	Associate Assistant Professor	Surgery Clinical Pathol- ogy
G. Marshall Kay, M.S CLINTON W. KEYES, Ph.D	Assistant	Lecturer Associate	Geology Greek and Latin
Albert R. Lamb, M.D		Professor Professor	Clinical Medi-
MINOR W. LATHAM, A.M		Assistant Professor	cine English
ISABEL F. LEAVENWORTH, A.B PHILIP R. LEHRMAN, M.D L. VOSBURGH LYONS, M.D ROBERT B. McGRAW, M.D	Assistant Assistant	Instructor Instructor	Philosophy Neurology Neurology Psychiatry
CHARLES A. MCKENDREE, M.D	Associate	Assistant Professor	Clinical Neurol-
RICHARD P. McKeon, A.B	Instructor	Assistant Professor	ogy Philosophy
F. RONALD MANSBRIDGE, A.B KATHERINE K. MERRITT, M.D	Assistant Instructor	Instructor Associate	English Diseases of Chil- dren
PAUL R. MORT, Ph.D	Associate Professor	Professor	Education
MICHAEL G. MULINOS, M.D		Professor	Pharmacology
GARDNER MURPHY, Ph.D		Assistant Professor	Psychology
S. Butler Murray, Jr., Ph.D	Professor	Professor	Fine Arts
JOHN E. ORCHARD, Ph.D	Assistant Professor	Associate Professor	Economic Geog-
Pablo M. Otero, M.D	Instructor	Associate	Bacteriology (School of Tropical Medicine)
IRVING H. PARDEE, M.D., D.D.S DOUGLAS B. PARKER, M.D., D.D.S	Professor	Associate Associate Professor	Neurology Dentistry
Frank H. Peters, M.D Howard W. Potter, M.D	Assistant Associate	Instructor Clinical Professor	Medicine Psychiatry
BLANCHE PRENEZ		Assistant Professor	French
J. Harris Purks, Jr., A.M Robert B. Raup, Ph.D	Assistant Professor	Instructor Associate Professor	Physics Education
HENRY C. RAVEN	Assistant	Lecturer	Zoölogy
HENRY C. RAVEN ROBERT J. REEVES, M.D. JOSHUA ROSETT, M.D.	Assistant Associate	Instructor Assistant Professor	Medicine Neurology
BERTRAM J. SANGER, M.D	Instructor	Associate	Medicine
BERTRAM J. SANGER, M.D AURA E. SEVERINGHAUS, A.M WILLARD L. SEVERINGHAUS, Ph.D	Instructor Assistant	Associate Associate	Anatomy Physics
	Professor	Projessor	
HENRY S. SHARP, A.M	Lecturer Instructor	Instructor Assistant	Geology Bibliography
Lewis M. Silver	Assistant		Diseases of Chil-
JOSEPH SMITH, M.D	Assistant Asso ci ate	Instructor Assistant	Clinical Medi-
Paul A. Smith, Ph.D	Instructor	Professor Assistant Professor	cine Mathematics

Name	From	To	Subject
WILHELMINA SPOHR, A.M	Assistant Professor	Associate Professor	Household Arts Education
JACINTO STEINHARDT, A.M FRANKLIN A. STEVENS, M.D	Instructor		Medicine
MARJORIE L. STRAUSS, M.D ETHEL STURTEVANT, A.M		Instructor Assistant Professor	Medicine English
JAMES M. STURTEVANT, M.D	Instructor	Associate	Diseases of Children
T. CLINTON TAYLOR, Ph.D	Assistant Professor	Associate Professor	Chemistry
Charles C. Tillinghast, A.M	Associate Professor	Professor	Education
Walter Timme, M.D	Clinical Professor	Professor	Clinical Neurol- ogy
WILLIAM D. TRACY, D.D.S	Assistant Professor	Professor	Dentistry
SAM F. TRELEASE, Ph.D	Associate Professor	Professor	Botany
CLIFFORD L. TRELEAVEN, A.M	Instructor	Assistant Professor	Physics
WILLIAM D. TURNER, Ph.D	Instructor	Assistant Professor	Chemical Engi- neering
ROBERT VON NARDROFF, Ph.D	Instructor	Assistant Professor	Physics
GOODWIN B. WATSON, Ph.D	Assistant Professor	Associate Professor	Education
HAROLD W. WEBB, Ph.D	Associate Professor	Professor	Physics
LINCOLN T. WORK, Chem.E., A.M	Instructor	Assistant Professor	Chemical Engi- neering
J. Enrique Zanetti, Ph.D	Associate Professor	Professor	Chemistry

CHANGES OF TITLE

To Take Effect, Unl	ess Otherwise Indicated, 2	Tuly 1, 1929
Name	From	To
RICHARD T. ATKINS, M.D	Assistant Professor of Laryngology and Otology	Assistant Professor of Oto-Laryngology
JAMES W. BABCOCK, Litt.B	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
HELEN P. BEALE, A.B		Research Assistant in Bacteriology
CHARLES P. BERKEY, Sc.D (October 31, 1929)		Newberry Professor of Geology
MAX BERNSTEIN, M.D	Assistant in Laryngology and Otology	Assistant in Oto-Lar- vngology
DINO BIGONGIARI, A.B (October 31, 1929)		Da Ponte Professor of Italian
EDWIN B. BILCHICK, M.D	Assistant in Laryngology and Otology	Assistant in Oto-Lar- yngology
HUGH B. BLACKWELL, M.D	Instructor in Clinical Laryngology and Otology	Instructor in Clinical
THOMAS C. BLAISDELL, JR., A.M.		Lecturer in Economics
WILLIAM A. BORING, Litt.D (October 31, 1929)	Professor of Design	Ware Professor of Ar- chitecture
WESLEY C. BOWERS, M.D	Instructor in Clinical Laryngology and Otology	Instructor in Clinical Oto-Laryngology

Name	From	To
GEORGE R. BRIGHTON, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
George V. Brown, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
IRVING H. BROWN, Ph.D	Assistant Professor of Romance Languages	Assistant Professor of French
MATTHEW L. CARR, M.D	Instructor in Laryn-	Instructor in Oto-Lar-
ARTURO L. CARRION, M.D	gology and Otology Instructor in Plague Prevention	yngology Instructor in Bacteri- ology (School of Trop- ical Medicine)
CORNELIUS G. COAKLEY, M.D.	Professor of Laryngology and Otology	Professor of Oto-Lar- yngology
John J. Coss, Litt.D (October 31, 1929)	Professor of Philosophy	Moore Collegiate Pro- fessor
OSCAR COSTA-MANDRY, M.D.	Associate in Bacteriology	Instructor in Public Health Laboratory Methods (School of Tropical Medicine)
Francis Deák, S.J.D	Lecturer in Interna- tional Law	Lecturer in Law
CLARA ELIOT, Ph.D		Lecturer in Economics
Adolph Elwyn, A.M	Assistant Professor of Anatomy	Assistant Professor of Neurology
HELEN E. FARR, A.B	Associate in School Library Administra-	Instructor in School Library Administra-
JAMES K. FINCH, C.E., A.M (October 31, 1929)	tion Professor of Civil En- gineering	tion Renwick Professor of Civil Engineering
J. Winston Fowlkes, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
EDWARD FRANKEL, JR., M.D.	Assistant in Laryn- gology and Otology	Assistant in Oto-Lar- yngology
RICHARD FROTHINGHAM, M.D.		Assistant Professor of Oto-Laryngology
WILLIAM J. GIES, Sc.D., LL.D. (January 7, 1929)	Research Professor of Biological Chemistry	Professor of Biological Chemistry
HARRY D. GOETCHIUS, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- vngology
CHARLES N. HARPER, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
E. Emile Harrison, M.D		Assistant in Oto-Lar- yngology
MICHAEL HEIDELBERGER, Ph.D.	Associate Professor of Medicine	Associate Professor of Biological Chemistry
WARD A. HOLDEN, M.D	Professor of Clinical Ophthalmology	Clinical Professor of Ophthalmology
FORREST E. KENDALL, Ph.D.	Associate in Medicine	Associate in Biological Chemistry
JOHN D. KERNAN, M.D	Assistant Professor of Laryngology and Otol- ogy	Assistant Professor of Oto-Laryngology
E. Willis Kobler, M.D		Instructor in Oto-Lar- yngology
ENRIQUE KOPPISCH, M.D	Instructor in Tropical Medicine	Instructor in Pathology (School of Tropical Medicine)
FREDERIC S. LEE, LL.D., Sc.D.	Research Professor of Physiology	Professor of Physiology
Robert Lewis, M.D	Professor of Clinical Laryngology and Otology	Professor of Clinical Oto-Laryngology

Name	From	To
Charles C. Lieb, M.D	Professor of Pharma- cology	Hosack Professor of Pharmacology
A. Arthur Livingston, Ph.D.		Associate Professor of French
CHARLES E. LUCKE, Sc.D (October 31, 1929)		Stevens Professor of Mechanical Engineer- ing
VICTOR C. McCuaig, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
ROBERT M. MACIVER, Litt.D. (November 1, 1929)		Lieber Professor of Political Philosophy and Sociology
EUGENIA F. MAECHLING, Ph.D.	Associate in Derma- tology	Research Associate in Dermatology
RALPH MARCUS, Ph.D		Gustav Gottheil Lec- turer in Semitic Lan- guages
Daniel Gregory Mason, Litt. (October 31, 1929)	D. Professor of Music	MacDowell Professor
Margaret S. Melcher, M.D.	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
WILLIAM B. MELONEY, A.B ALFRED MICHAELIS, M.D	Assistant in English	Lecturer in English Instructor in Oto-Lar- yngology
John Miller, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
Otho L. Monroe, M.D		Instructor in Oto-Lar- yngology
James G. Morrissey, M.D		Assistant in Oto-Lar- vngology
HENRI F. MULLER, Ph.D	Professor of French	Professor of Romance Philology
HARRY NEIVERT, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
GEORGE NOBBE, A.M GEORGE C. D. ODELL, Ph.D., Li	Assistant in English	Lecturer in English
(October 31, 1929)	Professor of Dramatic Literature	Brander Matthews Pro- fessor of Dramatic Lit- erature
JOHN R. PAGE, M.D	gology and Otology	Instructor in Oto-Lar- yngology
LEE R. PIERCE, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar- yngology
Edgar M. Pope, M.D	Instructor in Laryn- gology and Otology	Instructor in Oto-Lar-
THOMAS T. READ, Ph.D (October 31, 1929)	Professor of Mining	yngology Vinton Professor of Mining Engineering
LINDSAY ROGERS, LL.B., Ph.D.	Professor of Public Law	Burgess Professor of Public Law
FORDYCE B. St. JOHN, M.D		Professor of Clinical Surgery
TRUMAN L. SAUNDERS, M.D	Assistant Professor of Laryngology and Otology	Assistant Professor of Oto-Laryngology
CARL S. SHOUP, A.B	Instructor in Business Administration	Lecturer in Business Administration
Florence M. Stone, $A.M.$.		Research Assistant in
Clare M. Tousley, $A.B.\ .\ .$		Bacteriology Lecturer in Social Science
Gustave L. van Roosbroeck,	Ph.D. Assistant Professor of Romance Languages	Assistant Professor of French

APPOINTMENTS

To Take Effect, Unless Otherwise Indicated, July 1, 1929

Name					Title
Hodson Abbot, M.D					Assistant in Medicine
(October 1, 1929)					Locturor in Cocialana
THEODORE F. ABEL, Ph.D THEODORE G. ADAMS, A.M		•	•	•	Assistant in Zoology
Marion Adkerson, A.M					
(December 1, 1929)		•	•	•	Resistant in Sanitary Science
JOHN B. AHOUSE, M.D					Assistant in Diseases of Children
A. Adrian Albert, Ph.D					Instructor in Mathematics
JAMES C. ALLAN, D.D.S					Instructor in Dentistry
HILDA W. ALLEN, M.D			٠		Assistant in Neurology
ERIC L. ALLING, M.D.					
HARRY S. ALTMAN, M.D EDMOND AMATEIS					Associate in Modeling
J. Burns Amberson, Jr., M.D.		•	•	•	Assistant Professor of Clinical
(January 1, 1020)					Medicine
Anna Anastasi, A.B					Lecturer in Psychology
DOROTHY H. ANDERSON, M.D.					Assistant in Pathology
SAMUEL ANGUS, D.D., LITT.D					Visiting Professor of Education
(To February 1, 1930)					A
SAMUEL ATKIN, M.D		•	٠	٠	Assistant in Neurology
LAND N. BALDWIN M.D.		•	•	•	Assistant in Moureleau
JANE N. BALDWIN, M.D MARGARET BANCROFT, A.M		•	•	•	Lecturer in History
HENRY U. BARBER, D.D.S			:		Instructor in Dentistry
RALPH W. BARNES, A.B					Assistant in Physics
MERRITT W. BARNUM, M.D					Assistant in Neurology
S. Muriel Baron, M.D THOMAS N. BARROWS, A.B		٠			Assistant in Neurology
THOMAS N. BARROWS, A.B		٠			Lecturer in Economics
HENRY A. BARTELS, D.D.S		•	•	•	Instructor in Dentistry
JACQUES M. BARZUN, A.M JAMES S. P. BECK, B.S		٠	•	•	Instructor in Pathology
LESLIE P. BEEBE, A.M		٠	•	•	Lecturer in Business Adminis-
(February 1, 1929)		•	•	•	tration
THOMAS E. BENNER, A.M., Ed.D.					
JULIETTE BERNAT, M.D					
BERTHA BISBEY, A.M				٠	
(September 16, 1929)					Chemistry
Solon N. Blackberg, Ph.D					
WILFRED BLACKHAM JOSEPH R. BLALOCK, M.D		•	٠		Instructor in Psychiatry
OSWALD H. BOLTZ, M.D	• •	•	•	•	Assistant in Neurology
RUTH P. BRICKNER, M.D	: :		Ċ		Assistant in Psychiatry
(November 1, 1929)					
ELIZABETH G. BROCKETT, A.M					Instructor in Psychiatry
(September 15, 1929)					A
SANGER BROWN, II, M.D		٠	٠	٠	Associate in Neurology
CLIFFORD L. BROWNELL, Ph.D		•	٠	٠	Assistant Professor of Physical Education
LOSEDU BRUNÉ M D					
JOSEPH BRUNÉ, M.D HERBERT B. BRUNER, Ph.D		•	•	•	Professor of Education
JOHN M. BRUSH, M.D		:	Ċ	:	Assistant in Diseases of Children
(March 1, 1929)					
LEON BUCHBINDER, A.M					
D D D D D W					ology
PHILIP B. BUCKY, E.M		٠	٠	•	Assistant Professor of Mining
CHARLOTTE BÜHLER		•	٠	٠	Visiting Lecturer in Psychology
(To February 1, 1930) RUTH L. BUNZEL, Ph.D					Lecturer in Anthropology
HENRY BURCHELL, A.M		:	:	:	Director of the Casa Italiana
(January 1, 1929)					

Name	Title
DONALD M. BURMISTER, C.E	Instructor in Civil Engineering
	Instructor in Fine Arts
John P. Caffey, M.D	Associate in Diseases of Children
MEREDITH F. CAMPBELL, M.D.	Assistant in Neurology Associate in Diseases of Children
	Associate in Diseases of Children
(September 1, 1929) ROYALL G. CANNADAY, M.D	Instructor in Neurology
ROYALL G. CANNADAY, M.D	Lecturer in Italian
TERESA CARBONARA	Instructor in Economics
PATRICK M CARROLL M.D.	Assistant in Neurology
PATRICK M. CARROLL, M.D	Assistant in Neurology
AURIN M. CHASE, JR., A.M.	Assistant in Riophysics
ELLIOTT E. CHEATHAM, LL.B	Professor of Law
PAUL CHESLEY, A.B	Assistant in Zoölogy
MARIAN H. CHURCHILL	
IANE P. CLARK, A.M.	Instructor in Government
	Instructor in Chemistry
MARY JO COBB, A.B.	Assistant in Botany
CHARLES W. COLE, A.M	
	Assistant Professor of Physi-
	ology
ARTHUR P. COLEMAN, Ph.D	Lecturer in Slavonic Languages
C. Sterling Conover, D.D.S	Instructor in Dentistry
DONALD P. COTTRELL, Ph.D	Assistant Professor of Education
	Assistant Professor of Education
(October 1, 1928)	
GERALD S. CRAIG, Ph.D	Assistant Professor of Natural Sciences
THOMAS S. CRAWFORD, M.S	Assistant in Chemical Engineer-
THOMAS O. CRAWFORD, M.O	ing
WILLIAM CRAWFORD, D.D.S	Associate Professor of Den-
	tistry
ELLWOOD P. CUBBERLEY, LL.D	Visiting Professor of Education
ELLWOOD P. CUBBERLEY, LL.D GEORGE W. CUMBLER, M.D	Assistant in Neurology
Addison Cutler, A.M	Instructor in Economics
MARK J. DALEY, M.D	Assistant in Neurology
	Instructor in Neurology
LEO M. DAVIDOFF, M.D	Instructor in Neurology
Mrs. Harriet V. Davies	Assistant to the Director of
(October 1, 1929)	University Extension
JOHN S. DAVIS, M.D	Assistant in Neurology
Perry L. Davis, A.M	Instructor in Physical Educa-
Manager II Damoor M.D.	tion
MARTIN H. DAWSON, M.D	Instructor in Business Statistics
L. SCOTT DAYTON, M.S	Lecturer in International Law
(February 1, 1929)	Lecturer in international Law
AMELIA AGOSTINI DE DEL RIO, A.B	Lecturer in Spanish
GUY R. M. DEL GIUDUCE, Met.E	
MILTON C. DEL MANZO, Ph.D	Provost of Teachers College
(April 17, 1929)	- To to to the total of the tot
ANGEL DEL RIO Ph.D.	Instructor in Spanish
SOLOMON M. DELSON, Ph.B	Lecturer in French
D. Anthony D'Esopo, M.D	Instructor in Obstetrics and
	Gynecology
FLORIE DEUTSCH, M.D	Assistant in Oto-Laryngology
(April 1, 1929)	A transfer Objects
ALDIN J. DEYRUP, A.B	Assistant in Chemistry
BERNARD O. DODGE, Ph.D	
	Assistant in Neurology
Louis B. Dotti, B.S.	Research Assistant in Physiology
MILES A. DRESSKELL, B.M	
	Music

Name	Title
WALTER F. DUGGAN, A.M	. Instructor in Physiology
Walter F. Duggan, A.M	. Lecturer in Banking
IOHN R. DUNNING, A.B.	Assistant in Physics
MILO A. DURAND, A.B. WILLIAM R. DYER, M.D. MARGARET EAGLESON, A.M.	. Assistant in Mathematics
WILLIAM R. DYER, M.D	. Assistant in Neurology
Margaret Eagleson, A.M	. Lecturer in Economics
Cronje B. Earp, A.M	, instructor in classics (St.
	Stephen's College)
CHESTER W. EMMONS, Ph.D	. Associate in Dermatology
Julius R. Fabricius, M.D Frederick J. Farnell, M.D	. Assistant in Neurology
FREDERICK J. FARNELL, M.D	. Assistant in Neurology
HARTWELL H. FASSNACHT, A.M DORIAN FEIGENBAUM, M.D	. Assistant in Chemistry
DORIAN FEIGENBAUM, M.D	. Assistant in Neurology
LAURENT FEINIER, M.D	. Instructor in Neurology
(Echarder 7 7000)	. Lecturer in Economic History
(February 1, 1929)	Instructor in Economics
ROBERT S. FORD, A.M	. Research Assistant in Chemistry
(February 1, 1929)	. Research Assistant in Chemistry
ROBERT L. FOX, A.B	. Assistant in Chemistry
(August 16, 1929)	. Assistant in Chemistry
S. OSCAR FRY, M.D	Assistant to the University
(September 1, 1929)	Medical Officer
CARL GARABEDIAN, Ph.D	
CARE GARABEDIAN, I III.D.	matics and Instructor in Physics
	(St. Stephen's College)
DANIEL P. GIRARD, A.M	Instructor in French
SIDNEY A. GLADSTONE, M.D	. Instructor in Pathology
WILLARD R COLSAN M D	Assistant in Urology
HAROLD I. GOSLINE, M.D	. Assistant in Neurology
HAROLD I. GOSLINE, M.D. CHARLES M. GOSS, M.D. GEORGE A. GOSSELIN, M.D.	. Instructor in Anatomy
George A. Gosselin, M.D	. Assistant in Neurology
P.DWARD W. CTOULD, W.D	Assistant in Neurology
ELI GOURIN, E.M.	Assistant in Mathematics
ELI GOURIN, E.M. BENJAMIN GRAHAM, B.S.	Lecturer in Finance
JOHN L. GRANT, LL.B	. Associate in Law
Marc A. Graubard, A.M	Assistant in Zoology
HOWARD A. GRAY, A.M.	Instructor in Neurology
LEIZER GRIMBERG, M.D	Assistant in Medicine
(February 25, 1929)	Assistant in Medicine
ROBERT P HAMILTON IN RCI. I.I.R	Associate Professor of Law
ROBERT P. HAMILTON, JR., B.C.L., LL.B. IRVING C. HANGER, M.D.	Assistant in Medicine
(December 1, 1929)	1 Lookstant III III careine
LAWRENCE V. HANLON, M.D	Assistant in Diseases of Children
HENRY B. HANSTEIN, E.E	Instructor in Electrical Engi-
,	neering
MARGARET HARLAND, B.A	Instructor in Anatomy
ALVIN R. HARNES, M.D	Assistant in Diseases of Children
LUCY J. HAYNER, Ph.D EVAN HAYNES, J.D	Assistant in Physics
Evan Haynes, J.D	Visiting Lecturer in Law
Hugh M. Hicks, M.D	Instructor in Medicine
(October 1, 1929)	D ((D)
ALFONS HILKA	Professor of French
(To February 1, 1930)	A t-t to NT1
(October 1, 1929) ALFONS HILKA	Assistant in Neurology
LEO HIRSCHBERG	Instructor in Obstatrice and
JOEL M. HILL, M.D	Instructor in Obstetrics and Gynecology
HOUGHTON HOLLIDAY, D.D.S	Assistant Professor of Dentistry
	and Superintendent of Clinics
RICHARD W. HOPE A.B.	Lecturer in Philosophy
RICHARD W. HOPE, A.B	Associate Professor of Education
HAROLD E. HOYT, M.D	Assistant in Neurology
	5.

Name			Title
RANDAL HOYT, M.D	•	•	 Instructor in Pharmacology
I AMES H HUDDIESON M.D.	•	•	 Instructor in Neurology
JAMES H. HUDDLESON, M.D THEODORE A. JACKSON, A.M	•	•	 Lacturer in Development
(To February 1, 1930)		•	 Lecturer in r sychology
ERIC R. JETTE, Ph.D			Associate Professor of Metal-
ERIC K. JEITE, III.D	•	•	 lurgy
THOMAS H. JOHNSON, M.D			Instructor in Ophthalmology
JAMES L. JOUGHIN, M.D			 Assistant Clinical Professor of
JAMES D. JOCOHIM, M.D	•	•	 Neurology
HELEN E. JUDY, Ph.D			Assistant Professor of House-
TIBEBR E. Jest, This	•	•	 hold Arts
CLAUS W. JUNGEBLUT, M.D			 Associate Professor of Bacteri-
, , , , , , , , , , , , , , , , , , ,			ology
HAIG H. KASABACH, M.D			 Instructor in Medicine
GRAYSON N. KEFAUVER, Ph.D			 Associate Professor of Education
PAUL A. KENNEDY, A.M			 Assistant in Diseases of Children
JAMES H. KENYON, M.D			 Associate in Neurology
JOSEPHINE H. KENYON, M.D			 Assistant in Neurology
Brina Kessel, M.D			 Assistant in Diseases of Children
ELIZABETH T. KINNEY			 Assistant in Zoölogy
Daniel B. Kirby			
CAMILLE KJERESZTURI, M.D			
ANITA E. KLEIN, A.M			 Lecturer in Greek and Latin
Russell M. Krob, B.Arch		٠	 Associate in Design
(October 1, 1929)			
RAPHAEL KURZROK, M.D			 Assistant in Obstetrics and
			Gynecology
IRVING LANGMUIR, Sc.D., LL.D		•	 Lecturer upon the Charles
T T W.D.			Frederick Chandler Foundation
JACOB LATTMAN, M.D	•	•	 Instructor in Medicine
(January 1, 1929)			Instructor in Pine Arts
MARIAN LAWRENCE, A.M.	•	•	
Sylvester R. Leahy, A.M	•	•	Instructor in Neurology
JOHN LEVY, A.M.	•		Instructor in Psychiatry
(To February 1 1939)	•	•	 Lecturer in Zoölogy
(To February 1, 1930) FRANK J. LIDDY, M.D			Assistant in Neurology
CHRISTOPHER U. LINDER, M.D	•	•	 Assistant in Diseases of Children
Armin K. Lobeck, Ph.D			 Professor of Geology
Russell D. Loucks, B.S.			Assistant in Chemistry
HARRY M. LYDENBERG, A.B			
ALEXANDER V. LYMAN, M.D			
HOWARD L. McBain, Ph.D., LL.D.	•		Dean of the Faculties of Political
TOWNED BY INCOME, THE STREET			 Science, Philosophy, and Pure
			Science
EWING C. MCBEATH, M.D., D.D.S.			 Associate Professor of Dentistry
VITTORIO MACCHIORO, Ph.D			 Visiting Professor of Religion
(To February 1, 1930)			0
			 Instructor in Anatomy
CHARLES F. McCombs, B.L.S			Associate in Library Adminis-
			tration
HAROLD F. McGuire, A.B			
IOHN M. McKINNEY, M.D			 Instructor in Neurology
ISABELLE W. MAGNE			 Lecturer in French
ISIDORE MARGARETTEN, M.D			 Instructor in Neurology
RODERICK D. MARSHALL, A.M			
			 Assistant in Psychiatry
(November 1, 1929)			
EDWIN B. MATZKE, A.B			 Instructor in Botany
JESSE V. MAUZEY			 Instructor in Philosophy (St.
Y W M DI D			Stephen's College)
Lois H. Meek, Ph.D			 Associate Professor of Education

Name		Title
JERUSHA G. MEIGS, B.L.S		. Associate in School Library Service
KENNETH M. METCALF, M.D		. Assistant in Diseases of Children
KEYES D. METCALF, A.B		Associate in History of Libraries
HENRY MILCH, M.D		. Instructor in Anatomy . Instructor in Mathematics
HENRY W. MILLER, M.D.		Instructor in Neurology
LUCY C MILLER M D		. Assistant in Neurology
ROBERT M. MILLER, M.D.		. Instructor in Anatomy
George S. Mitchell, Ph.D.		. Instructor in Economics
DAVID D. MOORE, M.D		. Assistant in Medicine
RICHARD L. MOORE, M.D		. Instructor in Surgery
(November 1, 1928) PAUL R. MORT, Ph.D		. Director of the School of
(March 1, 1929)		Director of the School of Education
HARRY M. Moss, D.D.S		. Instructor in Dentistry
Mary C. Moss, A.B.	: :	. Assistant in Dermatology
R. STERLING MUELLER, M.D		. Instructor in Anatomy and
		Assistant in Surgery
FLORIZEL DE L. MYERS, M.D		. Associate in Neurology
JOSEPHINE B. NEAL, M.D		. Clinical Professor of Neurology
PAGE NORTHINGTON, M.D (November 1, 1929)		. Instructor in Oto-Laryngology
John Notkin, M.D		Assistant in Neurology
JOHN NOTKIN, M.D		Lecturer in Anthropology
(Hebruary r. rose)		
JOHN C. OSWALD		. Associate in History of Printing
J. WALLACE PAGE, JR., A.B		. Research Assistant in Food
(**ugust 1, 1929)		Chemistry
HELEN PALLISTER, A.B		Assistant in Psychology
HORACE O. PARRACK, A.B E. ALLISON PEERS, M.A		. Assistant in Zoology . Visiting Professor of Modern
E. ALLISON FEERS, M.A		Comparative Literature
JAMES K. PETTIT, M.D		
(November 1, 1929)		
HELMUTH L. PFLUGER, A.B		. Assistant in Chemistry
THEODORE PICK, M.D		. Assistant in Medicine
ARTHUR W. POLLISTER, A.M		Instructor in Zoölogy
Juan A. Pons, M.D		(School of Tropical Medicine)
GARFIELD POWELL, M.A		
GEORGE K. PRATT. M.D.		. Instructor in Neurology
GEORGE K. PRATT, M.D		. Lecturer in Economics
(Fobruser v voca)		
GIUSEPPE PREZZOLINI MILES O. PRICE, B.L.S.		. Visiting Professor of Italian
MILES O. PRICE, B.L.S		. Law Librarian
(October 24, 1929) MICHAEL I. PUPIN, LL.D., Sc.D		. Professor Emeritus of Electro-
(Ianuary 1, 1020)		Mechanics
ISIDOR I. RABI. Ph.D		. Lecturer in Physics
Isidor I. Rabi, Ph.D John H. Rathbone, M.D		. Assistant in Urology
FRED H. KATHERT. M.A		. Instructor in English
THOMAS T. READ, Ph.D		. Professor of Mining
SAMUEL REBACK, M.D.		Assistant in Neurology
JOHN RECCA, M.D	• •	. Assistant in Diseases of Children . Assistant in Diseases of Children
Frank E. Rians, D.D.S		. Instructor in Dentistry
ROWENA RIPIN, Ph.D		Lecturer in Psychology
HELEN RIVKIN, A.M		Lecturer in Psychology Assistant in Biological Chem-
		istry
Louise Rosenblatt, A.B		. Instructor in English
EMANUEL ROTH, M.D		Assistant in Oto-Laryngology
MARY SABARTH		Lecturer in German Instructor in Anatomy
ATTENDED ATT DALLICK, MILD		. Instructor in Amatomy

Name		Title
LEON A. SALMON, M.D GERHARD M. SALZMANN, A.B NORMAN B. SAUNDERS, M.D JOHN H. SCHARF, M.D		. Assistant in Neurology
GERHARD M. SALZMANN, A.B		. Assistant in Chemistry
NORMAN B. SAUNDERS, M.D		. Assistant in Neurology
JOHN H. SCHARF, M.D		Instructor in Neurology
RUDOLPH SCHARF, M.D A. ARTHUR SCHILLER, A.M		. Assistant in Medicine
(February 1 1020)		. Lecturer in Law
(February 1, 1929) DOROTHEA H. SCOVILLE, M.D DAVID SEEGAL, M.D		Assistant in Neurology
DAVID SEEGAL, M.D.		. Assistant in Medicine
(November 1, 1929)		
HARRY H. SHAPIRO, D.M.D		. Instructor in Anatomy
HERBERT SHAPIRO, B.S		. Assistant in Zoölogy
VIDA P. SHERWOOD, M.D		. Assistant in Dermatology
JAMES A. SHIELD, M.D		Instructor in Psychiatry
GENTRUDE SHULTS M D		Assistant in Diseases of Children
WILLIAM D SUKWORTH M D	٠.	Assistant in Neurology
WILLIAM H. SILVERSTEIN, M.D	: :	. Assistant in Oto-Laryngology
(June 1, 1929)		
HARWOOD SIMMONS		. Associate in Music
HANS SMETANA, M.D		. Assistant Professor of Pathology
C. Marana Carrana B.C.		(School of Tropical Medicine)
G. MILTON SMITH, B.S LESLIE F. SMITH, M.A		Lecturer in Psychology
Muron Sauru A M		Lecturer in English
MILTON SMITH, A.M		Lecturer in Economics
WILLIAM I SPRING M.D.		Instructor in Physiology
WILLIAM J. SPRING, M.D	: :	. Assistant in Diseases of Children
LEO STERN		. Lecturer in Finance
LEO STERN		. Instructor in Neurology
RUTH M. STRANG, Ph.D. MARION STRENG. WINIFRED STURDEVANT, Ph.D. HARWELL P. STURDIVANT, A.M.		. Assistant Professor of Education
MARION STRENG		. Instructor in Physical Education
WINIFRED STURDEVANT, Ph.D		. Lecturer in French
HENRY SUZZALLO, LL.D		Visiting Professor of Education
(To February 1, 1930)		. Visiting Floressor of Education
GEORGE SWIKART		. Lecturer in Optometry
GEORGE SWIKART		. Lecturer in Social Research
NORMAN TAUBE, M.B		. Instructor in Anatomy
JOHN THURROTT, M.D		. Assistant in Neurology
JOHN THURROTT, M.D		. Assistant Professor of Education
WILLIAM R. TORGERSON, M.D., LL.D.		. Associate Professor of Tropical
		Medicine (School of Tropical Medicine)
CORNELIUS H. TRAEGER, M.D		
LEON A. TULIN, LL.B		. Associate Professor of Law
MARIORIE TUZO RS		Instructor in Physical Education
JACQUES S. UHR, M.D. FRANK VERO, M.D. PERCY R. VESSIE, M.D. HELEN M. WALKER, Ph.D.		. Assistant in Diseases of Children
FRANK VERO, M.D.		. Assistant in Dermatology
PERCY R. VESSIE, M.D		. Assistant in Neurology
LYDIA P. WALER, A.M.		Assistant Professor of Education
LYDIA B. WALSH, A.M		Lecturer in Chinese Language
CHI-CHEN WANG, A.B JUSTINE O. WANGER	• •	Research Assistant in Pharma-
(Ianuary 1 1020)		cology
WIN H. WATTERS, M.D		. Instructor in Surgery
(October 1, 1928)		
LAWRENCE A. WEBER, A.B		. Assistant in Chemistry
EDANIC WEITENWAYER I II D		Assistant in Neurology
GEORGE R WENDT A M		Associate III DOOK IIIUStration
HERMANN G. WENDT, A.M.		Lecturer in German
STANLEY M. WERSHOF, M.D		. Assistant in Diseases of Children
LAWRENCE A. WEBER, A.B. SAMUEL WEINGROW, M.D. FRANK WEITENKAMPF, L.H.D. GEORGE R. WENDT, A.M. HERMANN G. WENDT, A.M. STANLEY M. WERSHOF, M.D. WILLIAM K. WHEELER, M.D.		. Assistant in Urology

Name	Title
DOROTHY V. WHIPPLE, M.D (November 15, 1929)	 Assistant in Diseases of Children
Douglas M. Whitaker, Ph.D Sigmund L. Wilens, M.D	
MABEL WILLIAMS, B.S.	
ALEXANDER H. WILLIAMSON, M.D	
WILLIAM R. WILSON, M.D	
OSKAR WINTERSTEINER, Ph.D	
ELEANOR M. WITMER, A.M (June 1, 1929)	
PAUL M. WOOD, M.D (January 1, 1929)	 Assistant in Surgery
WADE WRIGHT, M.D (January 1, 1929)	 Lecturer in Pharmacology
Morris A. Zimmer, D.D.S	 Instructor in Dentistry

LEAVES OF ABSENCE

For the Whole or Part of the Academic Year 1928-1929 Were Granted to the Following Officers

Were Granted to the Follo	owing Officers
Name	Title
Mrs. Elizabeth F. Baker Charles P. Berkey, Ph.D. Thomas H. Briggs, Ph.D. Kathryn E. Briwa, A.B.	. Professor of Geology
OTIS W. CALDWELL, Ph.D., LL.D. HARRY J. CARMAN, Ph.D. DONALD L. CLARK, Ph.D. GERTRUDE K. COLBY, B.S.	. Professor of Education . Associate Professor of History . Associate Professor of English . Assistant Professor of Physical Education
HENRY E. CRAMPTON, Ph.D. RAY H. CRIST, Ph.D. JOHN DEWEY, Ph.D., LL.D. WILLIAM B. DINSMOOR, S.B. NOEL T. DOWLING, A.M., LL.B. EDWARD M. EARLE, Ph.D. CLARA ELIOT, Ph.D. WARREN E. GIBBS, A.M. EMMA H. GUNTHER, A.M.	. Instructor in Chemistry . Professor of Philosophy . Professor of Architecture . Professor of Law . Associate Professor of History . Instructor in Economics
CHARLES E. HAMILTON, M.D	. Instructor in Medicine . Associate Professor of Drawing
JAMES F. HOSIC, Ph.D	 Professor of Education Professor of Law Professor of Mathematics Chaplain Associate Professor of Zoölogy
MARY V. LIBBY, A.B	. Assistant to the Dean of Barnard College in Charge of
KARL N. LLEWELLYN, LL.B., J.D EARL B. LOVELL, C.E	. Professor of Education

Name	Title
Josephine A. Marshall, A.M	 . Assistant Professor of Household Arts Education
GEORGE L. MEYLAN, A.M., M.D	 . Professor of Physical Education
EDGAR G. MILLER, JR., Ph.D	 . Associate Professor of Biologi- cal Chemistry
HERMAN OLIPHANT, A.B., J.D	 . Professor of Law
EDWIN W. PATTERSON, LL.B., S.J.D.	
CYRUS H. PEAKE, A.M.	 . Lecturer in Chinese
JOHN DYNELEY PRINCE, Ph.D	 . Professor of Slavonic Languages
ROBERT B. RAUP, Ph.D.	 . Assistant Professor of Education
ARTHUR F. J. REMY, Ph.D	
Donana I Coverer no Dh D	Philology
ROBERT L. SCHUYLER, Ph.D	
MARY M. SEALS	 Associate Professor of Anatomy
J. CLAYTON SHARP, M.D	 and Histology
WILLIAM R. SHEPHERD, Ph.D., L.H.D.	
ALBERT SHIELS, A.M., L.H.D.	
JAMES T. SHOTWELL, Ph.D., LL.D.	
LEWIS P. SICELOFF, Ph.D	
	 matics
ARTHUR P. STOUT, M. D	 . Associate Professor of Surgery
GEORGE D. STRAYER, Ph.D	
REXFORD G. TUGWELL, Ph.D	 . Associate Professor of Economics
MABEL F. WEEKS, A.B	 . Associate in English
RAYMOND WEEKS, Ph.D	 . Professor of Romance Philology
WILBUR L. WILLIAMS, A.B	
J. Emilie Young, A.M	 . Instructor in History

REPRESENTATIVES OF THE UNIVERSITY DURING 1928-1929

At the Installations

- Of Garfield Bromley Oxnam as President of De Pauw University, Greencastle, Ind. (October 12, 1928): JOHN SMITH HARRISON, Ph.D. '03, Butler College, Indianapolis, Ind.
- Of William Sherwood Fox as President of the University of Western Ontario, London, Ontario, Canada (October 19, 1928): Professor Wilhelm A. Braun.
- Of W. Coleman Nevils as President of Georgetown University, Washington, D. C. (October 27, 1928): MARCUS BENJAMIN, '78 Mines.
- Of James Hugh Ryan as Rector of the Catholic University of America, Washington, D. C. (November 14, 1928): GEORGE OAKLEY TOTTEN, JR.
- Of Harvey Nathaniel Davis as President of Stevens Institute of Technology, Hoboken, N. J. (November 23, 1928): Dean Pegram, Professor William W. Lawrence, Professor Charles E. Lucke, Professor William A. Shoudy, Professor Walter I. Slichter, Professor Charles W. Thomas.
- Of George Morris Smith as President of Susquehanna University, Selinsgrove, Pa. (November 23, 1928): ROBERT BAGNELL, A.M. '09, Ph.D. '11.
- Of John Roscoe Turner as President of West Virginia University, Morgantown, W. Va. (November 28, 1928): JASPER N. DEAHL, '99 A.M., '06 Ph.D.
- Of Edmund D. Soper as President of Ohio Wesleyan University, Delaware, Ohio (February 14 and 15, 1929): ROBERT BAGNELL, A.M. '09, Ph.D. '11.
- Of James Laurence Meader as President of Russell Sage College, Troy, N. Y. (February 22, 1929): Hewlett Scudder, E.E. '99, A.M. '09.
- Of James N. Kieran as President of Hunter College, New York, N. Y. (March 26, 1929): Dean GILDERSLEEVE.

- Of Mervin Grant Filler as President of Dickinson College, Carlisle, Pa. (April 26, 1929): Edgar Milton Bowman, Ph.D. '26.
- Of Frank Parker Day as President of Union College, Schenectady, N. Y. (May 4, 1929): Professor Franklin H. Giddings.
- Of King Vivion as President of Southwestern University, Georgetown, Texas (June 3, 1929): Hugh S. Carter, Ph.D. '28.
- Of Franklin Winslow Johnson as President of Colby College, Waterville, Maine (June 14, 1929): Professor Marston Taylor Bogert.

At the Anniversary Celebrations

- Of the Semicentennial of Creighton University, Omaha, Nebraska (October 18, 19 and 20, 1928): HERMAN VON W. SCHULTE, M.D. '02.
- Of the One Hundredth Anniversary of Ohio Mechanics Institute, Cincinnati, Ohio (November 22, 23 and 24, 1928): FREDERICK P. BAYLES, E.M. '95.
- Of the Fiftieth Anniversary of Radcliffe College, Cambridge, Mass. (May 31, 1929): Dean GILDERSLEEVE.
- Of the Twenty-fifth Anniversary of inauguration of research activities of the Carnegic Institution, Cold Spring Harbor, N. Y. (May 31, 1929): Professor Leslie C. Dunn.

Miscellaneous

- At the International Convention on Cancer, London, England (July 16 to 22, 1928): Dr. Francis Carter Wood.
- At the Oriental Congress, Oxford, England (August, 1928): Mr. Cyrus H. Peake, Professor Richard J. H. Gottheil, Professor A. V. Williams Jackson.
- At the International Congress of Americanists, New York, N. Y. (September, 1928): Professor Franz Boas, Dr. Gladys Reichard.
- At the Sixty-fourth Convocation of the University of the State of New York, Albany, N. Y. (October 18 and 19, 1928): Dean Hawkes, Professor Adam Leroy Jones, Professor Charles C. Williamson, Professor Harry J. Carman.
- At the Formal Opening of the new Engineering Building of Princeton University, Princeton, N. J. (November 15, 1928): Dean Pegram, Professor Charles E. Lucke.
- At the Meeting of the Association of American Universities, Ann Arbor, Mich. (November 15, 16, and 17, 1928): Dean WOODBRIDGE, Professor ADAM LEROY JONES.
- At the Meeting of the Association of Urban Universities, New York, N. Y. (November 15, 16, and 17, 1920): Professor James C. Egbert.
- At the Second International Conference on Bituminous Coal, Pittsburgh, Pa. (November 19 to 24, 1928): Professor J. J. Morgan.
- At the Association of Colleges and Secondary Schools of the Middle States and Maryland, Atlantic City, N. J. (November 30 and December 1, 1928): Dean Hawkes, Professor Adam Leroy Jones.
- At the Meeting of the Modern Language Association, Toronto, Canada (December 26 to 29, 1928):
 - German: Professor Robert H. Fife, Professor Frederick W. J. Heuser, Professor Henry H. L. Schulze, Professor Wilhelm A. Braun, Professor E. W. Bagster-Collins, Mr. Percy Matenko, Mr. Samuel L. Sumberg, Mr. Herman G. Wendt.

- English: Professor Ralph L. Rusk, Professor Roger S. Loomis, Professor Emery E. Neff, Professor George P. Krapp, Professor A. H. Thorndike. Romance: Professor Arthur Livingston.
- At the Convention of the Association of American Law Schools, Chicago, Ill. (December 27, 28, and 29, 1928): Professor Robert E. Matthews, Professor Underhill Moore, Professor Richard R. B. Powell, Professor Douglas B. Maggs, Professor Julius Goebel.
- At the Fifteenth Annual Meeting of the Association of American Colleges, Chattanooga, Tenn. (January 10 to 12, 1929): Dean HAWKES.
- At the meeting for the reorganization of the Association of Colleges and Universities of the State of New York, New York, N. Y. (January 28, 1929): Dean Hawkes, Professor Adam Leroy Jones, Dean McBain, Dr. Willet L. Eccles.
- At the Conference of the Dental Schools registered in the State of New York, Cambridge, Mass. (February 1 and 2, 1929): Dean Owre.
- At the Annual Congress on Medical Education, Chicago, Ill. (February 18, 19, and 20, 1929): Dean Owre.
- At the Meeting of the Association of American Dental Schools, Chicago, Ill. (March 22, 23, and 24, 1929): Dean Owre.
- At the Second Conference on the Promotion of Chinese Studies, Cambridge, Mass. (April 3, 1929): Dr. Luther C. Goodrich, Dr. J. J. L. Duyvendak.
- At the Annual Meeting of the Associated Schools of Architecture, Washington, D. C. (April 19 to 21, 1929): Professor Joseph Hudnut.
- At the Formal Opening of Curtis Hall Engineering Laboratory, Drexel Institute, Philadelphia, Pa. (May 2, 1929): Dr. Ellwood Hendrick
- At the Meeting of the Dental Council of the State of New York and the State Board of Dental Examiners, Rochester, N. Y. (May 16, 1929): Dean Owre.
- At the Annual Meeting of the American Library Association, Washington, D. C. (May 13 to 18, 1929): Professor Charles C. Williamson.
- At the Committee on Regional Plan of New York and Its Environs meeting for the purpose of presenting a graphic plan for the New York-New Jersey-Connecticut Region, New York, N. Y. (May 27, 1929): Professor WILLIAM A. BORING.
- At the Convention of the New Jersey Pharmaceutical Association, Asbury Park, N. J. (June 17 to 21, 1929): Dean Rusby, Professor Lewis N. Brown.
- At the New York State Pharmaceutical Convention, Saratoga, N. Y. (June 17 to 21, 1929): Professor C. P. Wimmer, Professor H. H. Schaefer, Professor Fanchon Hart.
- At the Third Conference on Chemical Engineering, Philadelphia, Pa. (June 19 to 22, 1929): Professor D. D. Jackson.



PART II Report of the Treasurer



REPORT

To the Trustees of Columbia University in the City of New York

The Treasurer makes the following report of the financial affairs of the Corporation for the year ended June 30, 1929.



INDEX

Income and Expense Account	5
Income of the Corporation	6-9
Expenses—Educational Administration and Instruction	10–30
Expenses—Buildings and Grounds	31-32
Expenses—Library	33–35
Expenses—Business Administration	36
Expenses—Annuities	37
Expenses—Interest	38
Expenses—Summary	39
Students Loan Funds	40-41
Balance Sheet	42-43
Summary of Capital Account	44
Auditors' Certificate	45
Payments by Allied Corporations	46
Arrears of Rent	47
Receipts and Disbursements of Income of Special Endowments	48-58
Gifts and Receipts for Designated Purposes: Receipts and Disbursements	60-71
Securities Owned for Account of Special Endowments and General Funds	72-92
Summary of Investments	93
Redemption Fund	94
University Land, Buildings and Equipment	96-101
Other Property	102-104
Special Endowments	106-143
Permanent Funds	144-145
Gifts and Bequests Received for the Purchase of Land and Erection and Equipment of Buildings	146–157
Gifts and Bequests Received During 1928–1929	158-168



INCOME AND EXPENSE ACCOUNT (GENERAL FUNDS) FOR THE YEAR ENDING JUNE 30, 1929

INCOME FROM ALL SOURCES

From Endowments: Rents (see page 6)		\$899,618.76 1,754,617.86	\$2,654,236.62
From Investments in Personal Property (see prom Investment of Redemption Fund (see prom Gitts and Receipts for Designated Pu	age 6) rposes (see		172,005,49 69,309.22
page 7) From Allied Corporations (see page 7)			521,785.66 1,325,361.96
From Students: Fees (see page 9) Residence Halls (see page 9) Dining Halls (see page 9) Other Income		4,163,815.91 468,513.39 371,430.54 11,657.03	\$ 5,015, 4 16.87
From Department of Buildings and Grounds (see From School of Dental and Oral Surgery (see From Civil Engineering Testing Laboratory (see From Miscellaneous Sources (see page 9)	page 9) see page 9).		59,505.34 87,974.43 24,599.50 1,812.17
Total Income			\$9,932,007.26
EXPENSES			
Educational Administration and Instruction (see page 30)		8,159,488.07	
page 32)		943,149.89 358,188.40	
Business Administration of the Corporation: Salaries and Office Expenses (see page 36) Insurance on Academic Buildings [Fire and	\$192,825.04		
Liability] (see page 36)	46,962.17	239,787.21	
Annuities (see page 37)		48,316.57 455,855.10	
Total Expenses exclusive of provision for Redemption Fund and Amortization of Loan of 1925			\$10,204,785.24
Balance, being excess of Expenses over Income before providing for Redemption Fund and Amortization of Loan of 1925			\$ 272 , 777.98
Add: Amount transferred to Redemption Fund for retirement of 4 per cent Mortgage			
Bonds Amount transferred for Amortization of		100,000.00	
Loan of 1925		95,000.00	195,000.00
Deficit, being excess of expenses for main- tenance over income after providing for Redemption Fund and Amortization of Loan			
of 1925			\$467,777.98

INCOME OF THE CORPORATION—YEAR ENDING JUNE 30, 1929

	From Students		From Other Sources	ces	Total
	Fees	Other Income			
From Endowment: Rents: Upper Estate\$1,100,547.61 Less amount transferred to Advances General Funds			\$695,260.03 116,895.00	\$899,618.76	\$899,618.76
From Investments in Personal Property: Interest: On General Investments. On Deposits of General Funds. On Rents. On Student Deposits. On Notes Receivable. On 503-11 Broadway and 620 Fifth Avenue. On Accounts Receivable. On Glits and Receipts for Designated Purposes.			31,257,49 5,697.79 2,038.25 5,762.92 3,182.30 11,673.25 1,074.22		
From Investment of Redemption Fund. From Income of Special Endowments: For Specific Purposes. For General Purposes.			1,056,902,62 697,715.24 1,755,715,74	172,005.49 69,309.22 	172,005.49 172,005.49 69,309.22 69,309.22 1754,617.86 1,754,617.86

	From Students		From Other Sources	ırces	Total
	Fees	Other Income			
University Extension: University Fees. Tuition Fees. Home Study Fees. Home Study Fees. Home Study Fees. An Estudy Fees. An Estudy Fees. Institute of Arts and Sciences. American Institute of Banking.	\$91.574.00 954,778.30 656,039.86 36,989.98 65,466.67				\$35.00
Seth Low Junior College: University Fees. Tuition Fees. Degree and Examination Fees.	\$1,804,848.81 6,570.00 96,182.33 2,617.00				1,804,848.81
Medical School: University Fees. Tuition Fees. Degree and Examination Fees.	8,520.00 204,250.00 2,213.00 2,14,983.00				105,509.53
School of Dental and Oral Surgery: University Fees. Tution Fees Deficiency and Late Examination. Graduation.	3,500.00 76,435.00 42.00 1,280.00				
Oral Hygiene: University Fees. Tuition Fees. Graduation Fees. Deficiency and Late Examination.	1,380.00 17,162.50 680.00 81.00				

Advanced Courses: University Fees. Tuiting Fees	160.00						
T MITON F. CC3	2,074.30	102 705 00	: : : : : : : : : : : : : : : : : : : :	: : : : : : : : : : : : : : : : : : : :		00 202 001	
Miscellaneous		00,000,000	1,501.13			1,501.13 1,501.13 865.00	R
Teaching and Service Clinics (including Infirmary)		:			87,974.43	87,974.43	ЕР
Student Activities Fees	:	41,730.00				41,730.00	UK
Material Furnished Students		:	794.86			794.86	1
Receipts from Testing Laboratory: Civil Engineering. Residence Halls.			468,513.39		24,599.50	24,599.50 468,513.39	O F
Superintendent of Buildings and Grounds: Barnard College for Heat, Light and Power. Income from Tennis Courts. Post Office Government Allowance.				28,256.83			THE
Telephone Charges. Heating 117th Street Houses.				25,457.26 1,422.50			TK
University Commons (including Dental and Oral Surgery Commons). John Jay Hall Dining Room.			62,521.98 188,970.62 119,937.94		59,505.34	59,505.34 59,505.34 371,430.54	EASUR
From Miscellaneous Sources: Consents				15.00	:	:	ER
Various.			6,565.04	67.	1,812.17	8,377.21	
		\$4,163,815.91	\$851,600.96	\$851,600.96	\$4,916,590.39	\$9,932,007.26	>
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REPORT OF THE TREASURER

EXPENSES—EDUCATIONAL ADMINISTRATION AND INSTRUCTION

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
GENERAL UNIVERSITY ADMINISTRATION:	8220 333 44		\$180 333 44	83 500 00	\$27 500 00
Dean's Fund	2,000.00		2,000.00		
Bureau of Supplies.	24,895.00	:	24,895.00		
President's Emergency Fund	6,725.07		6,725.07		
President's Fund	20,000.00	:	20,000.00	:	
Printing	47,142.20	:	46,642.20	200.00	: : : : : : : : : : : : : : : : : : : :
Public Ceremonies	12,500.00		12,500.00		
Alumni Records	3,500.00		3,500.00	:	
State Aid for Blind Pupils	1,909.00				1,909.00
Special Convocations	5,000.00	:	5,000.00	:	
President's House Furnishing	2,091.80			2,091.80	
Illustrative Apparatus	351.75		:		351.75
Roberts Fellowships (Balance) Refunded	175.56			175.56	
Clerk's Office Sundries	1,500.00	:	1,500.00		
Study of Contemporary France	2,600.83		:		2,600.83
Social Club Kindergarten Class for Faculty Children	1,200.00		1,200.00	:	
University Representation	4,344.96		4,344.96		
Collegiate Educational Research	150.00		150.00	:	
Dean's Fund for Preparatory Schools	498.06			:	498.06
Statistical Bureau	501.00	:::::::::::::::::::::::::::::::::::::::			501.00
Research in the Humanities	12,129.36			:	12,129.36
Researches in Journalism	2,740.20	:		2,740.20	
Cleaning Portraits	966.28	:			966.28
College of Pharmacy	10.00			• • • • • • • • • • • • • • • • • • • •	10.00

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	RE.	PORT	OF T	HE TKE	ASURE	K	11
50.00 1,969.94 500.00		4,500.00				10,000.00	258.34
\$0.00					70.00	219.30	
41,730.00	5,000.00	59,420.03 6,736.77 6,074.51	3,600.00	11,500.00 16,965.59 5,000.00 365.50	15,821.73		24,800.00 1,994.13 5,557.65
41,730.00 50.00 1,969.94 500.00 500.00	5,000.00	63,920.03 6,736.77 6,074.51	3,600.00	11,500.00 16,965.59 5,000.00 365.50	15,891.73 3,868.69 478.78	10,219.30	24,800.00 2,252.47 9,547.65
Student Activities Expenses of Committee on Funds. Athletic Association. King's Crown. University Medals	EARL HALL Salaries Departmental	OFFICE OF THE REGISTRAR Salaries. Diplomas. Conduct of Examinations.	ADVISER TO GRADUATE WOMEN STUDENTS Salaries. Departmental Appropriation.	OFFICE OF UNIVERSITY ADMISSIONS Salaries. Departmental Appropriation. Preparation and Rating of Examination Books. Law School Admissions.	OFFICE OF STUDENT APPOINTMENTS Salaries. Departmental Appropriation Shoemaker Fund.	OFFICE OF ALUMNI FEDERATION Departmental Appropriation	UNIVERSITY MEDICAL OFFICER Salaries Supplies. Residence Halls Service.

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
COMMONS Salaries. University Commons. Johnson Hall Dining Room. John Jay Dining Room.	\$4,500.00 56,198.42 105,516.15 188,608.84		\$4,500.00 56,198.42 105,516.15 188,608.84		
JOHNSON HALL Salaries. House Appropriation.	7,857.00		7,857.00		
PUBLICATION AND RESEARCH Columbia University Press. Special Publication Fund. Fund for Research. Editing Works of John Milton. Publication of Carpentier Lectures. Phoenix Fund Publication of Studies in Journalistic History and Practice. University Publication Fund.	3,000,00 30,000,00 35,857,73 6,719,20 1,718,52 6,002,98 461,09 33,00	N 1060 303 11	3,000.00 30,000.00 35,857.73 6,719.20	\$1,718.52 6,002.98 461.09 33.00	
INTERNATIONAL RELATIONS Salaries Aid for Foreign Students.	3,000.00 4,500.00 500.00	8,000.00	3,000.00 4,500.00 300.00		\$200.00

MAISON FRANCAISE Salaries. Departmental Appropriation.	8,700.00		8,700.00	293.75	
CASA ITALIANA Salaries. Departmental Appropriation.	1,010.20	10,300,00	00.00.00		1,010.20
DEUTSCHES HAUS Maintenance		8,406.87	8,406.87		8,406.87
INSTITUTE OF RUMANIAN CULTURE		86.50			86.50
INSTITUTE OF PUBLIC HEALTH Salaries Denatimental Appropriation	35,340.00			27,440.00	7,900.00
Research. Equipment.	2,249.27 6,700.20 1,465.83			1,230.00	6,700.20
INSTITUTE OF CANCER RESEARCH Salaries	50,106.70	45,755.30		50,106.70	:
Departmental Expenses. Supplies and Equipment. Journal of Cancer Research.	23,486.62 3,000.00 4,049.36			20,995.21	2,491.41
TROPICAL MEDICINE (SCHOOL OF) Salaries. Contingent Fund.	19,125.00	80,642.68	1,000.00	18,125.00 800.00	
ANTHROPOLOGY Salarics. Departmental Appropriation. Research.	16,666.65 50.00 2,712.54	20,000,00	50.00	5,000.00	4,666.65

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ARCHITECTURE Salaries. Departmental Appropriation. Equipment.	\$52,847.55 2,926.95 2,076.74	857 851 94	\$52,847.55 2,870.00 2,076.74		\$56.95
ASTRONOMY Salaries Departmental Appropriation	9,900.00	10,501.08	9,241.68		658.32
BOTANY Salaries. Departmental Appropriation. Gardener. Research.	44,600.00 1,200.00 1,500.00 65.30	47 365 30	24,000.00 1,200.00 1,500.00		20,600.00
BUSINESS (SCHOOL OF) Salaries. Departmental. Research.	152,295.50 6,010.51 71.53	158 277 54	109,476.28 467.76	\$41,319.22 2.000.00	1,500.00 3,542.75 71.53
CHEMICAL ENGINEERING Engineering Chemistry Salaries. Laboratory Servants. Equipment. Departmental Appropriation.	42,899.98 6,000.00 9,926.21 134.17	58,960.36	38,399.98 6,000.00 7,236.23 134.17	4,500.00	2,439.98

	REPORT	OF THE	E TREAS	URER	15
19,600.00	5.5		1,250.00	862.40	28,175.00
00.000,0	6,300.00	5,000.00 125.00 4,018.17	3,320.55		
51,083.33 17,200.00 7,500.00 13,500.00	9,500.00 8,957.91 37,446.19 19,112.00		29,000.00 745.65 20,699.22	202,838.58 19,267.01 13,555.24	91,675.00
	230.378.55	9,143.17	56.953.73	236,523.23	120,850.00
70,683.33 23,200.00 7,500.00 13,500.00	17,000.00 12,995.01 37,446.19 19,112.00 25,009.60 3,932.42	5,000.00 125.00 4,018.17	29,000,00 745.65 4,570.55 20,699,22 1,938.31	203,700.98 19,267.01 13,555.24	119,850.00
CHEMISTRY General and Inorganic: Salaries Organic: Salaries Physical: Salaries Analytical: Salaries	Food: Salaries. Equipment and Supplies Laboratory Costs. Assistance Research: Salaries Research: Supplies.	CHINESE Salaries. Departmental Appropriation Lectures.	Salaries Salaries Departmental Appropriation For Research Testing Laboratory Fire Testing Station	DENTAL AND ORAL SURGERY (SCHOOL OF) Salaries. Equirment and Supplies. Social Service.	ECONOMICS Salaries. Departmental Appropriation

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ELECTRICAL ENGINEERING Salaries Departmental Appropriation	\$39,900.00	\$44,900.00	\$39,900.00		
ENGINEERING DRAFTING Salaties Drawing Appropriation	12,700.00	13 000 00	12,700.00		
ENGLISH AND COMPARATIVE LITERATURE Salaries	177,460.00 877.62	178 337 62	121,350.63 877.62	\$5,909.37	\$50,200.00
FINE ARTS Salaries. Equipment.	33,000.00	34 000 00	20,701.65	4,098.35	8,200.00
GEOLOGY AND MINERALOGY. GEOLOGY Salaries. Salaries. Departmental Appropriation. Summer Field Work. Crosby Collection of Lantern Slides.	50,695.45 2,478.48 494.52 30.05		36,695.45 2,478.48 494.52	5,000.00	9,000.00
MINERALOGY Salaries	7,500.00	61,608.67	7,500.00		

	REPORT OF	THE TR	EEASUF	RER	17
18,900.00	25,500.00	16,100.00	2,875.74		
1,847.17 186.82 62.50	25,500.00 503.35 125.00 250.00	2,090.60	820.44		44,802.75
33,952.83 125.00	39,400.00 250.00 250.00 75.00	105,900.00 800.00 7,500.00	16,679.56	12,500.00	
55,074.32	66,353.35	132,390.60	20,375.74	13,036.53	49,196.26
54,700.00 311.82 62.50	64,900.00 250.00 250.00 503.35 200.00 250.00	122,000.00 800.00 7,500.00 2,090.60	17,500.00	12,500.00	44,802.75
GERMANIC LANGUAGES Salaries Departmental Appropriation Lectures.	GREEK AND LATIN Salaries. Greek: American School at Athens. Latin: American School at Rome. Equipment. Departmental Appropriation. Archaeological Institute of America.	HISTORY Salaries. Departmental Appropriation. Publications.	INDO-IRANIAN LANGUAGES Salaries. Research.	INDUSTRIAL ENGINEERING Salaries Departmental Appropriation	JOURNALISM Salaries. Departmental Appropriation.

From Income and Receipts General of Special for Endowments Pruposes	\$127.833.33 \$6,000.00 \$5,000.00 600.00 7,446.46 1,000.00 586.00 700.00 439.74 435.26 656.81 4,500.00 23,490.03 1,000.00 23,490.03	44,629.11 27,700.00 4,591.51 22,710.00 5,348.17 113.05	55,500.00 121.80 56,900.00 2,998.02
Depart- 1 mental G Totals 1	\$12	82,434.55	69,021.80
Expenditures	\$138,833.33 610.00 7,446,46 1,000.00 586.00 700.00 875.00 3,656.81 27,990.03 1,000.00	72,329.11 4,644.22 5,461.22	68,900,00 121.80 56,900,00 2,998.02
	LAW SCHOOL Salaries. Salaries. Departmental Appropriation. Legislative Drafting Research Fund. Plus and Minus Examinations. Subvention to Columbia Law Review Moot Courts. Legislative Drafting Contingent Fund. Multigraph Office. Assistance and Research Dean's Fund. LIBRARY SERVICE (SCHOOL OF)	Salaries. Departmental Appropriation. Books. MATHEMATICS	Salaries Departmental Appropriation. MECHANICAL ENGINEERING Salaries. Departmental Appropriation.

	REPORT	OF T	HE TREA	ASURER	19
	4,500.00	20,345,10	17,400.00	25,500 00	12,400,00 50,00 1,684,28
2,465,10	14,551,09 500,00	9,755.00	5,875.00	1,215.61	
50,050,00	6,948.01 707.41 2,500.00	51,855,47 (75,00 500,00	29,825.00 1,000,00 2,499.44 699.99	40,544.36 3,854.10 1,500.00	111,684.14
56,175,16	50,286,65		140,402,50	72,614 10	1.87,056.82
\$0,050.00 3,660.00 2,465.16	25,000.00 1,297.44 3,088.94	81,925.57 175.00 500.00	53,100.00 1,000.00 2,499,44 1,202,49	67,260.00 3,854.10 1,500.00	124,084,14
MINUNG AND METALLHEGY Salaties Departmental Appropriation Apprairies.	MUSIC Salaries. Departmental Appropriation. University Orchestra. PHILOSOPHY AND PSYCHOLOGY	Salarles. Departmental Appropriation Purchase of Books.	PSYCHOLOGY Salaries. Laboratory Reper. Departmental Appropriation. Uquipment.	PHYSICAL EDDICATION Salaries. Equipment. Cate of Swimming Pool.	PHYSICS Sularies. Departmental Appropriation. Research Laboratory.

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PUBLIC LAW AND JURISPRUDENCE GOVERNMENT AND POLITICS Salaries. PUBLIC LAW Salaries. Departmental Appropriation. Lectures.	\$15,800.00 52,383.31 285.07 1,140.26	\$69.608.64	\$12,500.00	\$3,300.00	\$3,300.00 10,400.00 1,140.26
RELIGION Salaries Chapel Services Chapel Music. Religious Work. Chapel Organ	8,400.00 7,698.80 188.16 16.68 21.00 1,143.34			8,000.00 7,698.80 188.16	400.00 16.68 21.00
ROMANCE LANGUAGES Salaries. Departmental Appropriation. Photographs. Publications.	127,100.00 481.81 30.42 206.00	127,818.23	88,000.00		39,100.00 30,42 206.00
SEMITIC LANGUAGES Salaries. Departmental Appropriation. American School of Oriental Research in Jerusalem	9,500.00	9,602.62	9,000.00 2.62 100.00	500.00	

	RЕ	PORT	OF T	не т	REAS	UREI	}	21	
	4,000.00	98,099.55	4,000.63	1 22 6 00	1,650.00				
	17,800.00								
6,400.00	21,300.00	1,122.50	231,330.51	3,999.15	31,000.00	42,328.03 83,225.00	199,889.05 147,309.05 21,373.85	183,404.31 70,623.74	
	6,424.00	142,754.11		240,989.62		842,189.47		622,600.00	
6,400.00	43,100.00 422.11 9.95	98,099.55	1,059.33	3,999.15	32,650.00 64,966.67 184.08	42,328.03	199,889.05 147,309.05 21,373.85	183,404.31	
SLAVONIC LANGUAGES Salaries Departmental Appropriation	SOCIAL SCIENCE Salaries. Departmental Appropriation Bulletin of Social Legislation	Research. Equipment. SUMMER SESSION	Administration and distruction. Entertainment	Administration and Instruction	Institute of Arts and Sciences. American Institute of Banking. Syllabus.	Printing and Postage. Departmental. HOME STUDY	Salaries and Payments for Instruction and Supervision. Printing and Office Supplies. Special Course Expenses.	Registration and Advisory Expenses	

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ZOOLOGY Salaries. Departmental Appropriation. Marine Table, Wood's Holc. New Equipment. Special Equipment. Columbia Table at Naples.	\$93,476.60 3,449.92 500.00 10,143.08 9,965.85 250.00	8117.785.45	\$53,696.60 3,349.92 500.00 499.21	\$10,080.00	\$29,700.00 100.00 618.87 250.00
ADMINISTRATION Salaries. Alcohol. Office Supplies and Sundries. Care of Animals.	39,433.72 993.69 4,920.80 6,280.00	51 628 21	31,647.48 993.69 4,916.80 6,280.00	587.50	7,198.74
ANATOMY Salaries. Departmental Appropriation Publications.	76,190.02 8,080.00 40.73		69,148.33 2,000.00	2,691.60	4,350.09 80.00 40.73
BACTERIOLOGY Salaries	49,068.87 6,691.55	55,760.42	15,942.50	23,900.00 6,320.00	9,226.37

BIOLOGICAL CHEMISTRY						
Salaries. Departmental Appropriation Printing.	81,219.53 7,672.10 25.00	00 046 62	34,530.16	12,410.00 3,600.00	34.279.37 172.10 25.00	
DERMATOLOGY Salaries. Departmental Appropriation.	19,939.12	00,017,000	16,960.00		2,979.12	REF
DISEASES OF CHILDREN Salaries Departmental Appropriation	18,329.18	21,739,12	15,795.00	2,000.00	534.18	ORT
NEUROLOGY Salaries Departmental Appropriation	22,328.42 5,994.35	19,430.04	20,258.50 5,994.35	491.24	1,578.68	OF TI
OBSTETRICS AND GYNECOLOGY Salaries. Departmental Appropriation. Pathologist and Pathological Equipment. Bacteriologist and Bacteriological Equipment.	29,300.00 1,648.27 7,806.65 1,490.50	11.775,62	25,425.00 1,648.27 7,806.65 1,490.50	3,875.00		HE TREA
OPHTHALMOLOGY Salaries		40,245.42	2,100.00		2,039.04	SUR
OTO-LARYNGOLOGY Salaries		2,250.00	2,250.00		:	ER
PATHOLOGY Salarics. Departmental Appropriation. Research.	56,577.50 6,493.18 6,014.07	69,084.75	22,143.02 6,443.18	34,434.48	\$0.00 6,014.07	23

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PHARMACOLOGY Salaries. Mechanic and Special Equipment. Departmental Appropriation.	\$20,124.38 1,796.64 3,000.00	\$24.921.02	\$18,854.00 1,796.64 3,000.00		\$1,270.38
PHYSIOLOGY Salaries Departmental Appropriation Equipment	52,826.30 4,398.42 1,083.56	58.308.28	11,300.00	\$36,877.00 2,900.00 1,083.56	4,649,30
PRACTICE OF MEDICINE Salaries Laboratory Appropriation (Clinical Pathology). Departmental Appropriation (Bellevue Hospital) Departmental Appropriation.	96,433.13 1,300.00 411.01 2,991.51 19,976.62	191 110 27		88,433.13 1,300.00 411.01 2,991.51	8,000.00
PSYCHIATRY Salaries. Departmental Appropriation.	13,096.66	13,658.31	5,953.33	5,249.99	1,893.34
SURGERY Salaries. Departmental Appropriation. Supplies (Research Laboratory).	121,430.23 1,187.89 5,002.00		32,146.24	86,100.72	3,183.27
HOSPITAL INSTRUCTION		643.75	643.75		

PRESBYTERIAN HOSPITAL LABORATORIES		116,546.33		55,955.87	60,590.46
SLOANE HOSPITAL	:	225.00		225.00	:
VANDERBILT CLINIC	:	145.83		145.83	:
SLOANE HOSPITAL AND VANDERBILT CLINIC OPERATION AND MAINTENANCE	:	70,000.00	70,000.00	:	:
TEACHERS COLLEGE Salaries	:	695,769.45			695,769.45
ST. STEPHENS COLLEGE Salaries	:	50,363.03		:	50,363.03
RETIRING ALLOWANCES		90,712.36	14,540.00		76,172.36
WIDOWS' ALLOWANCES	:	40,528.16	6,920.00		33,608.16
ANNUITIES		70,079.85	47,247.52	:	22,832.33
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES Adams American Manufacturers of Toilet Articles. Anonymous. Baier (Victor) (Music) Bakefite. Borkefite. Borkefite. Borkefite. Chemical Engineering. Curtis. Curtis. Cutting (W. Bayard). Drister (Classical Philology).	1,250.00 1,800.00 1,000.00 1,000.00 1,85.22 930.00 1,100.00 614.83 1,500.00 8,000.00		1,500.00	1,250.00 1,000.00 930.00 1,100.00 1,500.00 8,000.00	1,800.00 1,000.00 185.22 614.83

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Du Pont (E. I.) (de Nemours Co.) (Industrial Chemistry) \$1,000.00 \$1,000.00 \$1,000.00 Fergusson 1,000.00 2,914.77 2,900.00 2,914.77 Firitzsche 2,400.00 2,914.77 2,400.00 2,914.77 Goldsechmidt (Samuel Anthony) (Chemistry) 1,25.00 1,425.00 2,914.77 Goldsechmidt (Samuel Anthony) (Chemistry) 1,25.00 1,000.00 200.00 Mckell William 1,200.00 200.00 Mckell 1,200.00 252.00 252.00 Proudift. 855.00 855.00 855.00 Proudift. 1,500.00 1,500.00 1,500.00 Roberts (Lydia C.) 2,193.54 21,903.54 21,903.54 Schiff 2,000.00 855.00 855.00 1,500.00 Inversity 2,000.00 1,500.00 1,500.00 1,500.00 Alma Mater 1,500.00 1,500.00 1,500.00 1,500.00 Bangs 1,500.00 1,500.00 1,500.00 1,500.00 Bangs 1,500.00

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Bloscom	200.00				200.00	
Brooklyn (College)	1.800.00			1,800.00		
Brooklyn (Barnard College)	1,800.00		1,800.00			
Burgess (Annie P.) (College)	293.75			293.75	:	
Burgess (Daniel M.) (College).	293.75			293.75		
Butler (Richard)	300.00			300.00	:	
Campbell (College)	352.50			352.50		R
Carnegie Corporation	10,000.00				10,000.00	Е
Class of 1848 (College)	587.50			587.50		P
Class of 1885, School of Mines	946.54			946.54		ó
Class of 1892, Arts and Mines	330.00	:		330.00	:	R
Class of 1896 (College, Applied Science or Architecture)	00.009			00.009		т
Collins (Perry McDonough) (College)	30,382.75	:		30,382.75	:	(
Columbia University Club	6,000.00				00.000,9) 1
Curtis (University)	300.00		300.00			F
De Witt.	765.09			765.09		Т
Dunn (Gano) (Applied Science)	350.00				350.00	Н
Edson	526.25			526.25		E
Evans	1,000.00			1,000.00		,
Faculty	17,460.00		15,864.67		1,595.33	Т
Gibson	536.11			536.11	:	R
Hall (George Henry) (College)	725.00			725.00	:	E
Haughton	226.00			226.00	:	A
Huber	250.00			250.00		s
Jones (John D.) (Pure Science)	200.00				200.00	U
McClymonds (Louis K.) (College)	1,300.00			1,300.00		R
МасМаноп	150.00			150.00	:	E
Moffat (College)	117.50			117.50	:	R
New York State Scholarships	20,350.00				20,350.00	
Perkins	750.00	:		750.00		
President's Scholarship	1,501.00	:	1,501.00		:	
Professors (Sons of)	5,965.00		5,965.00		:	
Pulitzer Scholars	9,350.00		9,350.00		:	2
Pulitzer Scholarships	13,550.00			13,550.00	:	27

		Troco C	#04 <u>9</u>	From	From Gifts
	Expenditures	mental Totals	General Income	of Special Endowments	
Rogers	\$250.00			\$250.00	
Sackett (Henry W.) (Journalism)	600.00				\$600.00
Sandham (Anna M.) (Barnard College)	525.00			525.00	
Saunders (Leslie M.) (College)	325.00			325.00	
Schermerhorn (College)	250.00			250.00	
Society for Promotion of Religion and Learning (College)	2,000.00		\$2,000.00		
Special	3,000.00			3,000.00	
Stroock	250.00				250.00
Stuart (College)	352.50		:	352.50	
Summer Session	4,287.00				4,287.00
Turner (Charles Wesley) (College)	255.00			255.00	
University	900.00		900.00		
Wheeler (John Visscher) (College)	646.67			646.67	
Wheeler (H. A.) (Applied Science)	352.50	: : : : : : : : : : : : : : : : : : : :		352.50	
		\$148,539.99			
PRIZES AND MEDALS	1				i
Alpha Kappa Fsi	25.00	:	: : : : : : : : : : : : : : : : : : : :	:	70.67
Anonymous	20.00				20.00
Bearns	1,200.00			1,200.00	
Bearns (For Administration)	250.00	:	:	250.00	
Brainard (Edward Sutliff) (College)	70.50		:	70.50	
Butler (Nicholas Murray) Medals	25.00	:		25.00	
Chandler	594.56			594.56	
Chanler Historical Prizes	655.00	:		55.00	00.009
Class of 1889	10.00			10.00	
Curtis	65.00	<u> </u>		65.00	

REPORT OF THE TREASURER

	REPORT	OF THE TREASURER	
			125.00
66.25 27.00 95.00 50.00 29.04	55.00 90.00 51.53 118.09 179.19	17,125,00 4,342,04 171,11 50,00 56,46 210,00 162,50 265,00 30,00 30,00 30,00	2,154.19 762.50 325.00 500.00 900.00 950.00
		27,415.77	
66.25 27.00 95.00 50.00 29.01	55.00 90.00 51.53 118.09 179.19	17.17.000 4,342.00 171.11 50.00 756.46 210.00 162.50 265.00 300.00 50.00	2,154.19 762.50 325.00 500.00 900.00 1,075.00
Earle. Eimer Eisberg (Albert Marion) Prize (Modern History) Ewell. Fox.	Green (Albert Asher) Prize (College). High Medals. Michaelis Prize (School of Business). Ordronaux (John) Prize (Law).	Pulitzer Prizes. Pulitzer Prizes Pulitzer Prizes Pulitzer Prizes (For Administration) Rhodes Rolker (Charles M. Jr.) Prize (College) Romaine (Benjamin F.) (Greek: College) Van Amringe Medal. Van Amringe Mathematical Prize (College). Van Buren (John Dash, Jr.) Prize (Mathematics: College). Van Rensselaer. Van Rensselaer. Van Rensselaer. Van Amringe Medal. Van Rensselaer. Van Rensselaer. Van Rensselaer. Van Rensselaer. Van Rensselaer. Van Rensselaer. Van Art Tille MEDICAL SCHIOOL	Blumenthal (George Jr.) Scholarships. Bark (Alonzo) Scholarship. Devendorf (David M.) Scholarship. Du Bois. Gies. Harsen Scholarships.

	Expenditures	Depart- mental Totals	From General Income	From From Gifts Income and Receipt of Special for Endowments Designated	From Gifts and Receipts for Designated Purposes
Hartley (Frank) Scholarship.	\$303.02			\$303.02	
Holt	1,800.00			1,800.00	
Huber (Francis) Scholarship	250.00			250.00	
Huber (Viola) Scholarship.	500.00			500.00	
Jacobi (Abraham) Scholarship	1,000.00			1,000.00	
James	2,500.00	2,500.00			
McAneny (Marjorie) Scholarship	293.75			293.75	
Medical School Scholarship	5.00	5.00			\$5.00
Meierhof Prize	170.00	170.00		170.00	
Watson (Dr. William Perry) Prize	275.00			275.00	
		\$14,380.10			
		\$8,159,488.07	\$5,403,904.63	\$8,159,488.07 \$5,403,904.63 \$951,548.02 \$1,804,035.42	\$1,804,035.42

EXPENSES—BUILDINGS AND GROUNDS

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
MORNINGSIDE HEIGHTS Salaries. Wages Wages Fuel. Gas. Maintenance of Buildings. Surphies. Water Telephone Service. Maintenance of Residence Halls. Maintenance of Journalism. Public Ceremonies. Summer Session: General Expense. University Extension: Evening Attendants. University Extension: Evening Attendants. Care of Class of 1881 Flagpole. Maintenance of Faculty House. Maintenance of Faculty House. Maintenance of Sac Italiana. Special Equipment.	\$18,000.00 168,545.09 71,698.13 3,653.03 79,348.88 24,436.02 10,834.17 36,400.00 251,250.44 16,280.28 2,964.67 14,989.00 6,000.00 70,640.00 88.20 7,519.63 7	\$793,272.24	\$18,000.00 164,521.66 65,608.13 3,653.03 79,348.88 24,436.02 10,834.17 36,400.00 251,250.44 2,964.67 14,989.00 6,000.00 6,000.00 6,000.00 7,207.58 3,000.00	\$4,023.43 6,000.00 16,280.28 16,280.28 88.20 312.05	\$7,439.70

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
BAKER FIELD Maintenance. Urgent Repairs. Flag Poles.	\$9,979.48 4,133.45 789.72		\$9,979.48	3.45	789.72
SCHOOL OF DENTAL AND ORAL SURGERY Wages Fuel Gas and Electricity Maintenance. Supplies. Water	17,600.00 2,400.00 3,800.00 5,750.00 5,000.00 350.00	\$14,902.65	17,600.00 2,400.00 3,800.00 5,750.00 5,000.00 350.00		
WEDICAL SCHOOL Wages. Fuel Gas Maintenance Supplies. Vater Urgent Repairs. Electricity	48,700.00 34,000.00 1,800.00 5,224,00 5,186.00 2,665.00 1,000.00	00.075.00	48,700.00 34,000.00 1,800.00 5,224.00 5,186.00 2,665.00 1,000.00		
		\$943,149.89	\$943,149.89 \$907,566.51	\$27,353.96	\$8,229.42

EXPENSES-LIBRARY

	Expenditures	Depart- mental Totals	From General Income	From From Gifts Income and Receipt. of Special for Endowments Designated	From Gifts and Receipts for Designated Purposes
L1BRARY Salaries	\$173,400.65 \$167,490.65	\$173,400.65	\$167,490.65	\$1,500.00	\$4,410.00
AVERY LIBRARY Salaries. Purchase of Books. Binding.	\$10,818.11 2,847.85 500.00		10,818.11	2,847.85	224.00
BUSINESS (SCHOOL OF) READING ROOM Salaries Maryn Scudder Library. Books and Binding.	8,880.37 1,500.57 2,581.80	14,103.90	8,880.37 1,500.57 2,497.80		84.00
CASA ITALIANA LIBRARY Salaries		12,902.74	:		1,000.00
DENTAL SCHOOL LIBRARY Books and Service	:	1,863.35	1,306.35	:	557.00
JOURNALISM LIBRARY Salaries Books and Binding. Newspapers.	5,790.00 2,253.49 500.00 100.25	8,643.74		5,790.00 2,200.49 500.00 100.25	53.00

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
LAW SCHOOL LIBRARY Salaries. Books and Binding.	\$14,630.77	\$35,657.44	\$14,630.77	\$11,530.52	\$2,885.83
MEDICAL SCHOOL LIBRARY Salaries Books and Binding. E. G. Janeway Library Grosvenor Library Jacobi Library Weinstein Library	12,120.00 5,558.16 1,617.65 108.70 369.95 44.46	19,818.92	12,120.00	1,617.65 108.70 369.95 44.46	2,828.50
BOOKS AND SERIALS		40,351.15	34,449.06	4,000.00	1,902.09
PURCHASES FROM SPECIAL FUNDS Barnard Library Cotheal (Alexander)	4,023.70			4,023.70	
Currier	1,953.27			1,953.27	
Johnston (Edward W. S.) Manners (Edwin).	97.63			97.63	
Reckford	38.81			38.81	
Schurz	521.72	0 074 33		521.72	
		8.074.72	-	-	

PURCHASES FROM GIFTS Thirteerity Extension Rock Fund	1 666.37				1 666.37	
Special Fourthment	21.60				21.60	
Legislative Drafting Research Fund	588.77				588.77	
Loeb (James)	130.83				130.83	
Low (William G.)	195.86				195.86	
Montgomery (Robert II.)	1,310.79				1,310.79	R
Class of 1912	26.00				26.00	E
Friends of the Library	251.82				251.82	P
Draper	325.72				325.72	O
Meyer	207.43				207.43	R
Seth Low Junior College	4,112.05				4,112.05	Т.
Morris	154.44				154.44	
Dodge (M. Hartiey)	33.90				33.90	O
		9,055.58				F
BINDING	12,207.57		12,207.57		:	T
CHANGES IN ROOM 422 LIBRARY AND PHYSICAL EQUIPMENT FOR	00 705	-	00 702			нЕ
THE LIBRARY	10,586.00		10,586.00			
EMERGENCIES.	999.56		999.56			TR
BIBLIOGRAPHY IN CRIMINAL LAW AND CRIMINOLOGY	2,650.45	:	2,650.45			ЕА
PRINTED CATALOGUE CARDS	00.009		00'009	:		S U
SUPPLIES	6,151.07		6,151.07	:		RЕ
		33,194.05				R
		\$358,188.40	\$296,504.31	\$38,684.09	\$23,000.00	

EXPENSES—BUSINESS ADMINISTRATION

art- From Income and Reccipts ttal General of Special for all nome Endowments Designated als Income Endowments Purposes	\$70,847.50 16,860.93 2,000.00 5,000.00 3,152.50 7,500.00 527.00 46,962.17 1,185.60 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20 649.20	\$239,787.21 \$225,864,48 \$2,499.98 \$11,422.75
Depart- mental Totals		 -
Expenditures	\$80,847.50 16,860.93 2,000.00 5,000.00 5,652.48 7,500.00 527.00 46,962.17 1,185.60 649.20	1,422.13
	Salaries Extraordinary Legal Expenses. Treasurer's Office Sundries. Auditing Accounts. Auditing Accounts. Special Corporation Expenses Office Rent. 16th Street Tunnels—Franchises. Amsterdam Avenue Franchise. Insurance. Federal Income Tax on Columbia College Bonds. Chaplain's House (413 West 117th Street) Taxes. Camp Columbia Taxes. Office of the Bursar: Clerical Assistance. Supplies. Dental School Assistance. Supplies. Assistance and Supplies.	New Equipment

EXPENSES—ANNUITIES

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
John W. Burgess Fund. Edward R. Carpentier Fund. H. W. Carpentier Fund	\$4,000.00 2,700.00 7,500.00		\$4,000.00	\$2,700.00	
W. Bayard Cutting, Jr., Fellowship Fund Ralph E. Mayer Fund	600.00			600.00	
Seidl Fund Waring Fund	600.00			v	00.000
Anonymous Fund for Department of Metallurgy					
Anonymous Fund for Department of Physics Hemingway Scholarship Fund	20,172.98 2,127.92			20,172.98	
	\$48,316.57		\$11,500.00	\$11,500.00 \$36,816.57	

INTEREST ACCOUNT

INTEREST PAID:		
On Columbia College Bonds	\$87,500.00	
On Ledoux Account	201.75	
On College of Dental and Oral Surgery Mortgages	5,625.00	
On Upper and Lower Estates Mortgage	223,725.00	
On 437 West 117th Street Mortgage	3,000.00	
On Current Loans	135,803.35	
-		\$455,855.10
DEDUCT INTEREST RECEIVED AS FOLLOWS:		
503-11 Broadway	11,223.25	
620 Fifth Avenue	450.00	
-		11,673.25
		\$444,181.85

EXPENSES—SUMMARY

	Total	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes	From Allied Corporations
Educational Administration and Instruction Buildings and Grounds. Library. Business Administration. Annuities.	\$8.159.488.07 \$5.403.904.63 943.149.89 907.566.51 358,188.40 296,501.31 239,787.21 225,864.48 48,316.57 11,500.00 455,855.10	\$5,403,904.63 907,566.51 296,501.31 225,864.48 11,500.00 455,855.10	:	\$951,548.02 \$1,804,035.42 27,353.96 8,229.42 38,684.09 23,000,00 2,499.98 11,422.75 36,816.57	
Transferred from Gifts and Receipts for Designated Purposes	10,204,785.24 7,301,195.03 1,056,902.62 1,846,687.59	7,301,195.03	1,056,902.62	10,204,785.24 7,301,195.03 1,056,902.62 1,846,687.59 1,325,361.96	\$1,325,361.96
Transferred from Income of Special Endowments and Gifts. Alumni Federation of Columbia University. Burgess (John W.). Carpentier (H. W.) Fire Insurance. Kennedy (John Stewart). Van Cortlandt (Robert B.) Alumni Federation of Columbia University Gift. Eno (Amos F.) Class of 1902.	698,175.27	6,603,019,76	698,175.27 4,285.64 5,000.00 68,287.99 2,500.00 135,987.51 40,280.67 440,523.43 850.00 6,603,019.76 1,754,617.86		\$21,325.63 460.03 450.03 521,785.66 1,325,361.96

STUDENTS LOAN FUNDS

	Principal		Principal		
	at	Additions	at	Loans	Balance
	June 30, 1928		June 30, 1929		
SPECIAL LOAN FUNDS:					
Benedict		\$45.00	\$45.00	\$45.00	
Bishop (Cortlandt F.)	\$531.17	24.35	555.52	175.00	\$380.52
Blumenthal (George Jr.)	27,530.19	3,072.77	30,602.96	5,840.50	24,762.46
Class of 1879, School of Mines	4,264.22	170.33	4,434.55	1,175.50	3,259.05
Class of 1886	616.22	14.96	631.18	328.50	302.68
Class of 1887, School of Mines	11,388.19	438.77	11,826.96	8,200.23	3,626.73
Class of 1901	5,222.49	5,139.61	10,362.10	8,772.35	1,589.75
Class of 1904	1,190.71	73.42	1,264.13	240.00	1,024.13
Class of 1908	1,024.32	35.72	1,060.04	897.21	162.83
Class of 1910	862.97		862.97	781.00	81.97
Class of 1914 War Memorial	1,042.15	10.52	1,052.67	1,012.12	40.55
Class of 1916	1,027.56	2.50	1,030.06	430.60	599.46
Clyde (Mrs. Ethel and Miss Edith)	3,249.66	555.53	3,805.19	3,378.56	426.63
Collins (Perry McDonough)	4,758.55	174.32	4,932.87	3,012.49	1,920.38
Engineering School	2,500.00		2,500.00		2,500.00
Graham (Newton)	13,566.49	399.14	13,965.63	8,359.44	5,606.19
Huber (Frederick W.)	100.00	11.20	111.20	100.00	11.20
Kearney (Phil)	2,081.64	110.12	2,191.76	1,377.24	814.52
Khapp	2,089.50	53.70	2,143.20	965.25	1,177.95
Law School.	81.36	:	81.36	67.50	13.86
Megrue (Koi Cooper) Emergency	10,000.00		10,000.00		10,000.00
Fayne (C. Q.)	3,106.97	112.79	3,219.76	1,896.72	1,323.04
Shoemaker (William Brock)	5,542.08	577.15	6,119.23	3,635.84	2,483.39
Stabler (Edward L.)	1,254.02	38.55	1,292.57	462.00	830.57
Students	17,741.55	982.48	18,724.03	16,802.82	1,921.21
University Extension	3,274.02	101.39	3,375.41	3,217.25	158.16
Total Special	\$124,046.03	\$12,144.32	\$12,144.32 \$136,190.35	\$71,173.12	\$65,017.23

GENERAL LOAN FUNDS:					
Applied Science Scholarship	10,918.19	4,163.78	15,081.97	1,361.89	13,720.08
Architecture Scholarship	2,953.11	1,100.06	4,053.17	1,202.00	2,851.17
Business Scholarship	15,716.69	6,350.34	22,067.03	6,219.13	15,847.90
College Scholarship	22,069.80	9,993.82	32,063.62	30,210.44	1,853.18
Fund of \$40,000	40,638.34	779.70	41,418.04	20,957.95	20,460.09
Graduate Scholarship	17,964.82	7,889.16	25,853,98	22,660.24	3,193.74
Journalism Scholarship	6,284.93	2,540.17	8,825.10	5,017.50	3,807.60
Law Scholarship	26,975.10	11,264.66	38,239.76	19,422.51	18,817.25
Medicine Scholarship	29,848.91	12,552.85	42,401.76	26,215.00	16,186.76
Total General	\$173,369.89	\$56,634.54	\$56,634.54 \$230,004.43	\$133,266.66	\$96,737.77
Total of Special and General Loan Funds	\$297,415.92	\$68,778.86	\$366,194.78	\$68,778.86 \$366,194.78 \$204,439.78 \$161,755.00	\$161,755.00

. \$204,439.78 . 1,113.10 . 1,000.74	\$206,553.62 . 6,817.63	. \$199,735.99
ANS TO STUDENTS Special and General as above. General (Special 1914-1915 Loan Account) (Special 1923-1924 Loan Account)	Less Reserves	Net.

BALANCE SHEET AT JUNE 30, 1929

ASSETS	General Funds	Special Endowments and Funds	Total
Cash at Banks and on Hand	\$188,660.23 92,168.33	\$30,392.52 58,731.22	, -
Accounts Receivable: \$119,244.70 Sundry Debtors			
Loans to Students, less Reserve (see page 41)	108,306.12 134,903.07	46,260.65 64,832.92	154,566.77 199,735.99
Inventories of Materials and Supplies	274,673.20		274,673.20
Rents Accrued—not due	25,132.50		25,132.50
Deferred Charges	81,708.33	1,648.93	83,357.26
Advances: Upper Estate Building Loans Against Future Appropriations and Bequests On Account of Income of Special Endowments and Gifts (see	2,379,994.23 8,000.00 89,363.44	205,000.00	2,379,994,23 213,000.00 89,363.44
pages 57 and 70)	10.162.50	16,290.53	16,290,53
University Patents, Inc.	10,463.50		10,463.50
Investment of Deposits—Book Value (see contra \$40,852.33)	29,878.50		29,878.50
Real Estate and Investments: Rental Property: General Funds: Upper and Lower Estates at 1929 Assessed Valuation Other Property at Book Values (see page 104)			
Special Funds	33,070,144.08	5,492,375.45	38,5 6 2,519.5 3
Securities Owned—Book Value (see page 93)	103,928.90	28,723,703.69	28,827,632.59
Redemption Fund: Securities and Cash	500,000.00		500,000.00
University Land, Buildings and Equipment at cost (see page 101)	32,872,674.30		32,872,674.30
	69,969,998.73	34,639,235.91	104,609,234.64
Loans—Due from General Funds and Special Endowments and Funds per contra		3,749,232.75	3,749,232.75
	\$69,969,998.73	\$38,388,468.66\$	3108,358,467.39

BALANCE SHEET AT JUNE 30, 1929

LIABILITIES, RESERVES, FUNDS AND (CAPITAL	General Funds	Special Endowments and Funds	Total
Accounts Payable		\$32,768.32		\$32,768.32
Deposits:	\$18,579.32 40,852,33			
Payments Received in Advance: Students Fees Prepaid Rents—Rental Properties	\$43,839.28 787.50	59,431.65 44,143.45	\$483.33	59,431.65 44,626.78
Interest payable accrued		64,537.72	\$463.33	64,537.72
Mortgages Payable: Upper and Lower Estates University Property Rental Property etc	\$4,417,500.00 180,500.00 4,627,602.07	9,225,602.07	2,500.00	9,228,102.07
Columbia College 4 % Mortgage Bonds		1,500,000.00	2,300.00	1,500,000.00
Reserves: Contingent Items	\$256.556.55 282,153.55	282,153.55	256,556.55	538,710.10
Unexpended Income Special Endowments (see page Unexpended Gifts and Receipts for designated page 70)	purposes (see		984,794.18 1,646, 4 25,25	984,794.18 1,646,425.25
Endowments and Funds: Special Endowments (see page 143) Student Loan Endowments (see pages 40-41) Permanent—For Purchase of Land, etc. (see page		230,004.43 18,434,572.78	34,491,190.8 5 136,190.35	34,491,190.85 366,194.78 18,434,572.78
Principal of Redemption Fund		500,000.00		500,000.00
Amortization—Loan of 1925		332,500.00		332,500.00
Capital Account (see page 44)		36,385,380.16		36,385,380.16
		\$67,091,094.13	\$37,518,140.51\$	104,609,234.64
Loans—Due to Special Endowments and Funds per	contra	2,878,904.60	870,328.15	3,749,232.75
		\$69,969,998.73	\$38,388,468.66\$	108,358,467.39

CAPITAL ACCOUNT AS AT JUNE 30, 1929

Balance at July 1, 1928		\$33,859,764 34
ADJUSTMENTS:		
App:		
Increase in Book Value of Upper and Lower Estates		
based on 1929 Assessed Valuations	\$2,273,000.00	
Redemption of Columbia College Bonds	750,000.00	
Interest allowed on Court Awards	32,079.00	
Church Street Easement	7,293,43	
Unexpended balances of Requisitions	11,086.04	
Adjustment of Income and Expenses applicable to	22,000.02	
Previous Years	11,099.49	
	\$3,084,557.96	
DEDUCT:	,	
Carrying charges on old Medical School	\$5,946.54	
Carrying charges on old Dental School	2,845.47	
Moving Expenses—Dental School	2,897.64	
Moving Expenses—Medical School	1,047.29	
Expenses of the Committee on Funds	7,235,86	
Interest on award—23 West 50th St	2,990.00	
Adjustment of Fees and Expenses applicable to		
Previous Years	2,819,45	
Accounts Receivable—Written off	5,965.63	
	\$31,747.88	
Net Additions		3,052,810.08
		\$36,912,574.42
Less:		
Transfers to Special Endowments and Gifts:		
To Student Loan Funds	\$51,840.00	
To Civil Engineering Testing Laboratory Fund	3,900.28	
To Summer Session Scholarship Gift	3,336.00	
To Columbia Alumni in Memoriam Fund	100.00	
To Alumni Association Prize Gift	100.00	
To Income Pulitzer Fund	140.00	59,416.28
		\$36,853,158.14
DEDUCT:		
Excess of Expenditures over Income for fiscal year		
ended June 30, 1929	• • • • • • • • • • • • • • • • • • • •	467,777.98
Balance at June 30, 1929		\$36,385,380.16

LINGLEY, BAIRD & DIXON

ACCOUNTANTS AND AUDITORS

TAX CONSULTANTS-FACTORY COSTS AND ORGANIZATION

No. 41, MAIDEN LANE

•

JOHN J. BAIRD, C.A.
CHARLEB A.BENNETT, A.S. A.A.
JOHN F. McCABE, LL.M.
CABLE ACCRESS
"AUDITORS"-NEW YORK"

RICHARD T. LINGLEY, C.P.A.

September 30, 1929.

UNITEO STATES
CHICAGO
LOS ANOELES
TULIS
ENGLAND
LONGON
GANADA
MONTREAL AND
PROVINCES
SOUTH A MERICA
RIO DE JANEIRO
SAO PAULO
CENTRAL AMERICA
MEXICO CITY

CERTIFICATE

We have examined the books and records of the Treasurer of Columbia University in the City of New York for the fiscal year ended June 30, 1929 and we are satisfied as to the general correctness of the accounts. Our detailed report thereon has been submitted to the Treasurer.

The cash at banks and on hand has been verified and the securities representing the invested endowments and funds have either been produced to us or verified by certificates received from the depositaries. We have verified the income receivable from invested endowments and funds and have tested and substantially verified all other income shown by the books of the University. Payments made on account of principal and income of General and Special Funds and Gifts have been tested to satisfy ourselves of their general accuracy.

The securities owned are carried either at their purchase price or at the market value at the date of their acquisition by gift.

The Academic Properties, covering Land, Buildings and Equipment are carried in the accounts at cost or assessed valuations at date of acquisition. The properties known as the Upper and Lower Estates are carried at 1929 New York City assessed valuations. The other properties of the University are carried at cost, cost plus carrying charges, 1923 and 1927 New York City assessed valuations, and in a few instances at nominal values. These valuations, for the purposes of the accompanying Balance Sheet, appear to us to be proper. Reservæfor depreciation have been deducted from the active rental properties.

On the basis stated above, WE HEREBY CERTIFY that the Balance Sheet submitted herewith is in accordance with the books and in our opinion fairly reflects the financial status of the University at June 30, 1929.

Lingley Baird & Sixon

Payments by Allied Corporations

(1)	Salaries Account Barnard College. Credited to the follow	ing Departn	ents:
	General University Administration	\$32,000.00	
	Anthropology	3,000.00	
	Botany	20,600.00	
	Chemistry	19,600.00	
	Economics	24,650.00	
	English and Comparative Literature	50,200.00	
	Fine Arts	8,200.00	
	Geology	9,000.00	
	Germanic Languages	15,400.00	
	Greek and Latin	25,500.00	
	History	16,100.00	
	Mathematics	13,400.00	
	Music	4,500.00	
	Philosophy and Psychology	31,700.00	
	Physical Education	25,500.00	
	Physics	10,600.00	
	Public Law	8,983.31	
	Religion	400.00	
	Romance Languages	39,100.00	
	Zoology	25,700.00	
	Library	3,600.00	
	Business Administration	10,000.00	
	Annuity Contributions	3,629.88	\$404.200.40
	Retiring Allowances	2,845.00	\$404,208.19 -
(2)	Salaries Account Teachers College. Credited to the follow Food Chemistry	1,200.00 800.00 695,769.45	nents:
	Institute of Public Health	900.00	
	Annuity Contributions	19,202.45	717,871.90 -
(2)	Carnegie Foundation. Credited to the following:		
(3)	Astronomy	658.32	
	Economics	525.00	
		1,800.00	
	Physics		
	Retiring Allowances	73,327.36	
	Social Science	4,000.00	
	Widows' Allowances	33,608.16	447.040.04
	Zoology	4,000.00	117,918.84 -
(4)	Presbyterian Hospital. Credited to the following:		
(-/	Laboratories		35,000.00
(5)	St. Stephen's College, Credited to the following:		
(0)	Salaries		50,363.03
			\$1,325,361.96

ARREARS OF RENT, JUNE 30, 1929

UPPER ESTATE

37 West 48th Street. 12 West 49th Street. 14 West 49th Street. 24 West 49th Street. 26 West 49th Street. 44 West 49th Street. 42 West 49th Street. 22 West 51st Street.	\$1,203.13 1,232.50 2,205.00 540.25 531.50 131.00 122.50 893.33	\$6 ,859.21
52 West Broadway		960.00
RENTAL PROPERTY		
83 Barclay Street	\$430.00	
21 Claremont Avenue	33.34	
29-35 Claremont Avenue	131.25	
39-41 Claremont Avenue	214.17	
115th Street and Amsterdam Avenue	175.00	
403 West 115th Street	628.50	
435 West 117th Street.	500.00	
Morningside Drive, 117th and 118th Streets	420.00	
460-64 Riverside Drive.	2,448.35	
56 Haven Avenue	374.98	5,355.59
ENO ESTATE		
21 South Street	\$600.00	
434½ West Broadway	9.00	
50 South Washington Square	625.00	
46 West 64th Street.	37.00	1,271.00
,		
PHOENIX ESTATE		
94 First Avenue.	\$35.00	
22 West 23rd Street	916.65	951.65
-		
HEMINGWAY PROPERTY		
237 Grand Street, Jersey City, N. J		38.00
	*	\$15,435.45

*Since June 30, 1929, this amount has been reduced to \$9,430.11.

RECEIPTS AND DISBURSEMENTS OF INCOME OF SPECIAL ENDOWMENTS FOR THE YEAR ENDING JUNE 30, 1929

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30, 1928	Received 1928-1929	Total Credits	Expended 1928-1929	Debit Balances June 30, 1929	Credit Balances June 30, 1929
Adams (Ernest Kempton)		\$5,963.06	\$2,500.00 250.00 4 285 64	\$8,463.06 293.75	\$1,250.00 293.73 4.285.64		\$7,213.06
Alumni War Bonus	\$.02		6.43	6.43	5.042.96	\$ 02	6.43
Anonymous for Department of MetallurgyAnonymous for Department of Physics.		3,152.78	5,000.00	8,152.78	5,000.00		3,152.78
Art Professorship		98.35	5,000.00	5,098.35	5,098.35		
Avery Architectural		1,213.81	2,500.00	3,713.81 2,027.34	2,847.85		865.96
Bangs (Francis Sedgwick)		53.85	300.00	353.85	353.85		4 265 00
Barnard Fellowship.		1,736.31	200.00	2,236.31	٠.		2,236.31
Barnard (Margaret)		934.88	3,792.50	4,727.38	າ ຍຍ		643.68
Bearns (Joseph H.). Beck Prize.		6,096.27	2,389.28	8,485.55	1,450.00		7,035.55
Beck ScholarshipReekman (Gerard)		17.50	100.00	117.50	117.50		
Beer (Julius)		892.68	500.00	1,392.68	1,140.26		252.42
Bennett Prize.		317.38	20.00	367.38			367.38
Blumenthal Endowment		5,386.40 783.00	5,000.00	8,386.40 7,524.13	4,009.95 7,000.00		4,376.45 524.13

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30, 1928	Received 1928-1929	Total Credits	Expended 1928-1929	Debit Balances June 30, 1929	Credit Balances June 30, 1929
Class of 1896 Arts and Mines. Class of 1901 Decennial. Class of 1902 Class of 1904 Class of 1905 Class of 1906 Class of 1906 Collins (Perry McDonough) Collumbia Alumni in Memoriam Columbia Alumni in Perpetuity Columbia Alumni in Perpetuity Columbia University Football Association Convers (B. B.). Corker (George). Crocker (George). Cross (A. K.). Currier (Nathaniel). Currier (Nathaniel). Curries (George William). Curtis (George William). Curtis (George William). Curting (W. Bayard). Curting (W. Bayard). Da Costa Professorship. Dan Costa Professorship. Dan Lung.		\$105.00 12.25 194.26 6,981.96 2.58 100.00 50.00 50.00 75,199.85 40.54 459.93 9,582.13 3,782.72 63.09 27.71	\$600.00 70.00 850.00 50.00 90.52 45.87 28.260.39 49.84 200.00 50.00 418.78 55.00 851.25 70,730.27 85.00 85.0	\$705.00 82.25 1,044.92 50.00 584.78 45.87 35.242.35 52.42 300.00 100.00 418.78 274.13 1,210.14 145,930.12 125.54 300.02 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.12 145,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02 146,930.02	\$600.00 70.00 70.00 (4) 494.26 (4) 45.87 32.182.75 19.30 200.00 (5) 418.78 (5) 418.78 71,101.91 30.05 1,500.00 65.00 8,000.00 (6) 796.96 4,330.00		\$105.00 12.25 50.00 90.52 3.059.60 33.12 100.00 100.00 100.00 174.828.21 553.49 74.828.21 95.49 30.02 1,006.66 11,455.77 2,782.72 63.09 27.71

	REPC	ORT O	F THE T	TREASURER	51
222.94 132.64 898.15 2,134.21	2,591.69 1,283.77 295.71 1,700.00	174.22 93.42 1,571.20 379.17 6.34	2,132.90 2,200.00 182.78 95.42	445.66 673.59 7.91 1,970.57	2,301.61 54.38 671.58 2,390.91 103.75
847.17 765.09 878.35	2,090.60 525.00 66.25 6,700.00	27.00	440,523.43 1,000.00 50.00	312.05 1,000.00 (7) 16,022.48 2,500.00 29.04 1,000.00 249.32 536.11	2,400.00 (8) 2,456.74 500.00 1,425.00 55.00 725.00
222.94 979.81 1,663.24 3,012.56	4,682.29 1,808.77 361.96 8,400.00	700.47 120.42 1,571.20 379.17	2,132,90 440,523,43 2,200,00 1,182.78 145,42	757.71 1,673.59 16,022.48 2,500.00 36.95 1,570.00 1,000.00 2,19,32 5,36.11	4,701.61 2,511.12 1,171.58 3,815.91 158.75 843.84
50.00 860.00 765.08 537.50	2,090.60 525.00 66.25 5,000.00	250.00 50.00 250.00 319.55 95.00	829.26 440,523.43 1,500.00 1,000.00 50.00	743.82 500.00 16,022.48 2,500.00 27.84 825.00 1,000.00 62.50 500.00	2,400.00 879.38 693.37 475.00 50.00
172.94 119.81 898.16 2,475.06	2,591.69 1,283.77 295.71 3,400.00	450.47 70.42 1,321.20 59.62	1,303.64 1,303.64 700.00 182.78 95.42	13.89 1,173.59 9.11 1,145.57 186.82 36.11	2,301.61 1,631.74 478.21 3,340.91 108.75
Deutscher Verein Prize	Junning (William A.)	ddson (Herman Aldrich). Simer (August O.) Medal. Sinstein. Silis (George Adams) Scholarship.	Essures (Artical Martion) Emmons (Samuel Franklin) Evans-Fellowship Evans (Henry) Scholarship Ewell (Ella Marie) Medal	'aculty House Maintenance. 'erguson (David W. and Ellen A.) 'ine Arts Endowment. 'ire Insurance. 'ox (Richard II.) Prize. 'aarth Memorial. 'ebhard. 'ebrad. 'ebrad.	Silder (Richard Watson). Soldschmidt (Sanuel Anthony). Sottheil (Gustav). Freen Prize. Jall (George Henry).

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30, 1928	Received 1928-1929	Total Credits	Expended 1928-1929	Debit Balances June 30, 1929	Credit Balances June 30, 1929
Hamilton (John Church) Harriman (Reverend Orlando) Harriman (Reverend Orlando) Haughton (Percy D.) Hapburn (A. Barton) Endowment Hepburn (A. Barton) Professorship Huber (Frederick W., Jr.) Scholarship Illig Indo-Iranian James (D. Willis) Jefferson Statue Maintenance Johnston (Edw. W. S.) Kenne (James Furman) Kennedy (John Stewart) Koplik Lasher (John K.) Law Library Libbey (Jonas M.) Loubat Loubat Loubat Loubat Maison Francaise Manners (Edwin)	\$346.24	\$11.10 1,131.87 12,852.99 7,377.48 313.55 108.33 119.43 70.44 435.00 411.90 411.90 411.90 413.84 7,32 675.00 411.90 411.90 411.90 411.90 411.90 411.90 411.90 411.90 411.90 411.90 411.90 411.90 41.90 41.93 4.653.07 41.03 41.03 41.03	\$50.00 5,625.00 5,348.80 600.71 45,704.45 7,500.40 175.50 250.00 115.00 5,000.00 1,0	\$61.10 6,756.87 18,201.79 254.47 53,081.93 5,984.98 489.05 358.33 234.43 820.44 5,435.00 501.90 107.32 1,620.94 1,620.94 1,620.94 1,620.94 1,620.94 18,441.20 5,000.00 5,003.07 5,003.0	\$61.10 5,909.37 226.00 226.00 7,500.00 250.00 250.00 20.00 250.00 97.63 1,000.00 (11)136,511.53 5,000.00 (12)16,008.34 5,000.00 150.00 150.00 293.75 293.75	\$1,515.02	\$847.50 181.17 28.47 15,473.25 489.05 108.33 144.43 144.43 155.00 501.90 9.69 675.00 781.25 11.03 71.23

	 	615.67	615.67	615.67		
	374.70	1,435.35	1,810.05	1,300.00		510.05
	6,457.18	1,143.75	7,600.93	(13) 5,000.00	:	2,600.93
Megrue (Roi C.) Scholarship	 88.67	350.00	438.67			438.67
Megrue (Stella C.) for Basketball	12.67	50.00	62.67			62.67
Megrue (Stella C.) Scholarship	 88.67	350.00	438.67			438.67
Member of Class of 1885	 219.16	52.50	271.66			271.66
Michaelis (Dr. Alfred Moritz) Prize	1.53	50.00	51.53	51.53		
		10,486.11	10,486.11			10,486.11
	587.50	200.00	1,087.50	525.00		562.50
	17.50	100.00	117.50	117.50		
Montgomery (Robert II.) Prize	17.59	100.50	118.09	118.09		
Morris (Augustus Newbold)	 212.50	595.14	807.64			807.64
	 1,217.39	375.00	1,592.39			1,592.39
	 87.50	500.00	587.50			587.50
	 26.69	152.50	179.19	179.19		
	 117.50	100.00	217.50	117.50		100.00
		14,410.92	14,410.92	(14) 14,410.92		
	 778.43	285.00	1,063.43	855.00		208.43
Perkins (Edward H. Jr.) Scholarship	 1,404.17	750.00	2,154.17	750.00		1,404.17
eters (William Richmond, Jr.)	 14,668.28	2,787.50	17,455.78	(15) 13,320.55		4,135.23
Philolexian Centennial Washington Prize	 254.62	50.00	304.62			304.62
	 142.16	70.00	212.16	70.00		142.16
	190,772.32	51,491.19	242,263.51	(16) 54,988.22		187,275.29
resident's House-Furnishing and Equipment		2,091.80	2,091.80	2,091.80		
Proudfit (Alexander Moncrief)	1,670.21	750.00	2,420.21	1,500.00		920.21
sychology	 875.00	5,000.00	5,875.00	5,875.00		
ulitzer (Joseph) for School of Journalism	 44,794.71	64,948.85	109,743.56	(17) 91,873.75	:	17,869.81
	93,177.47	26,018.84	119,196.31	(18) 95,737.29		23,459.02
ulitzer Scholarship	8,377.57	14,171.87	22,549.44	13,550.00		8,999.44
		59.05	59.05	38.81		20.21
	365.18	250.00	615.18	516.60		98.58
Revolving Loan Fund for Athletic Activities	 960.03	505.83	1,465.86	:	-	1,465.86

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1928-1929	Total Credits	Expended 1928-1929	Debit Balances June 30,	Credit Balances June 30,	-
Dhodas (F. D. F.) Scholarshin			\$108.55	\$108.55	8171.11	\$62.56		
Rogers (Howard Malcolm)		\$723.83	237.50	961.33	250.00		\$711.33	_
Rolker (Charles M., Jr.)		38.86	50.00	88.88	50.00		38.86	- '
Romaine (Benjamin F.).		1.12	756.46	757.58	756.46		1.12	
Ross (George)		195.95	1,119.69	1,315.64	1,215.64		100.00	
Sandham (Anna M.)		323.12	500.00	823.12	525.00		298.12	
Saunders (Alexander)		105.00	00.009	705.00	625.00		80.00	-
Saunders (Leslie M.) Endowment		52.50	300.00	352.50	325.00		27.50	
Schermerhorn (F. Augustus) Fellowship		2,630.53	625.00	3,255.53			3,255.53	•
Schermerhorn Scholarship		43.75	250.00	293.75	250.00		43.75	, ,
Schermerhorn (William C.)		2,207.07	25,107.15	27,314.22	22,381.11		4,933.11	•
Schiff (Jacob H.) Endowment		200.00	5,000.00	5,200.00	5,000.00		200.00	•
Schiff Fellowship		3,447.87	00.006	4,347.87	1,500.00		2,847.87	
School of Dental and Oral Surgery Endowment			1,159.47	1,159.47			1,159.47	_
Schurz (Carl) Fellowship		473.77	500.00	973.77			973.77	••
Schurz (Carl) Library		344.88	535.00	879.88	521.72		358.16	
			00.009	00.009	00.009			•
Shoemaker (William Brock)		44.95	500.00	544.95	(19) 728.78	183.83		•
Simon		252.30	441.53	693.83			693.83	•
Smyth (David W.)		127.29	762.50	889.79	787.50		102.29	
Social and Political Ethics Professorship	\$0 01	:	2,026.47	2,026.46	1,800.00		226.46	
Stokes (Caroline Phelps)		175.00	1,000.00	1,175.00	955.00		220.00	
Stuart Scholarship		52.50	300.00	352.50	352.50	:		

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30, 1928	Received 1928-1929	Total Credits	Expended 1928-1929	Debit Balances June 30,	Credit Balances June 30, 1929
Du Bois (Dr. Abram) Gies (William J.) Grosvenor (Robert) Memorial Harkness Funds Harsen Scholarship Harley (Frank) Hays (Mrs. Walter) Hemingway Scholarship Huber (Useph and Christina) Huber (Viola B.) Scholarship Jacobi (Abraham) Scholarship Jacobi (Abraham) Scholarship James (Walter Belknap) Lee. Markee (Francis Hartman) Markee (Francis Hartman) Markoe (Francis Hartman) Markoe (Grancis Hartman) Markoe (Grancis Hartman) Markoe (Francis Hartman)		\$3.905.75 2,902.62 60.59 29,494.55 276.98 69.96 1,323.64 43.75 293.75 218.35 1175.00 293.75 218.35 1175.00 283.50 393.92 43.75 2,575.97 160.13 160.13	\$900.00 1,885.39 125.00 145,593.18 1,566.64 300.00 521.67 1,080.04 1,116.46 250.00 250.00 1,500.00 1,500.00 1,500.00 550.00 570.00 570.00 570.00 570.00 570.00	\$4,805.75 4,788.01 185.59 175,087.73 1,843.62 369.96 521.67 1,080.04 2,540.10 2,540.10 2,540.10 2,540.10 2,540.10 2,540.10 2,540.10 2,540.10 1,175.00	\$900.00 108.70 108.70 146.774.95 1,566.64 303.02 491.24 2,127.92 1,800.00 250.00 369.95 1,000.00 1,617.65 2,500.00 763.44 145.83 293.75	1,047.88	\$3,905.75 76.89 28,812.78 276.98 66.94 30.43 740.10 43.75 96.67 43.75 68.79 175.00 2,375.18 1,130.48 65.28 65.28 40.13

			RΕ	РΟ	RТ	O F
1,595.41	1,844.87	182.76	314.68			
225.00 1,595.41	315.14			\$2,812.06		
225.00	315.14	275.00	4.98	\$1,914.04 \$976,764.18 \$1,949,975.55 \$2,924,825.69 \$1,942,843.57	188,225.71	\$1,754,617.86
1,595.41 225.00	1,844.87 2,075.41	457.76	319.66	\$2,924,825.69	Less Transfers	
	95.00	254.36	251.35	\$1,949,975.55	Less Trans	
1,420.41	1,749.87	203.40	68.31	\$976,764.18		
				\$1,914.04		
Smith Prize 1,420.41 Steers (James R.).	Stevens Prize. Swift Memorial	Watson (Dr. William Perry)	Wheelock (George G.)			

INCOME OF SPECIAL ENDOWMENTS-NOTES

TRANSFERS

(1)	To Barnard Medal Gift	\$60.00
(2)	To Income Barnard Library Fund	812.50
(3)	To Principal Class of 1905 Fund	494.26
(4)	To Principal Class of 1909 Flag Pole Fund	45.87
(5)	To Investment Columbia University Football Association Fund	418.78
(6)	To Principal W. Bayard Cutting Jr. Fellowship Fund	196.96
(7)	To Principal Fine Arts Endowment Fund	16,022.48
(8)	To Principal Samuel Anthony Goldschmidt Fellowship Fund	1,631.74
(9)	To Principal Ellen C. Harris Fund	7,997.19
(10)	To Principal A. Barton Hepburn Endowment Fund	1,789.46
(11)	To Investment John Stewart Kennedy Fund	524.02
(12)	To Principal Jonas M. Libbey Fund	258.34
(13)	To Principal McKim Fellowship Fund	5,000.00
(14)	To Principal Mary B. Pell Fund	14,410.92
(15)	To Principal William R. Peters Jr. Fund	10,000.00
(16)	To Principal Phoenix Fund	28,044.22
(17)	To Principal Pulitzer Fund for School of Journalism	11,916.27
(18)	To Principal Pulitzer Prize Fund	69,309.16
(19)	To Shoemaker Loan Fund	250.00
(20)	To Principal William P. Trowbridge Fellowship Fund	2,000.00
(21)	To Principal Van Amringe Memoriai Fund	23.09
(22)	To Principal L. A. Van Praag Fund	3,000.00
(23)	To Income Wm. J. Gies Fellowship Fund	235.39
	To Principal Class 1905 Fund	91.17
(24)	To Blumenthal Loan Fund	2,368.07
(25)	To Principal Cartwright Lectureship Fund	533.02
(25)	To Principal Delafield Professorship Fund	6,759.87
(27)	To Principal Wm. J. Gies Fellowship Fund	3,138.01
	To Gies Loan Fund	700.00
(28)	To Capital Account	194.92

\$188,225.71

GIFTS AND RECEIPTS FOR DESIGNATED PURPOSES

GIFTS AND RECEIPTS FOR DESIGNATED PURPOSES. RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1929

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30,	Received 1928–1929	Total Credits	Expended 1928–1929	Debit Balances June 30, 1929	Credit Balances June 30,
Advertising Research Laboratory Gift. Alpha Kappa Psi Fraternity Prize. Alumni of the College of Physicians and Surgeons for the Huntington Memorial Library. Alumni Federation. American Council on Education. American Council on Education. American Manufacturers of Toilet Articles, Gift for Chemistry Research. Anonymous Gift for Free Fellowship. Anonymous Gift for New Boathouse. Anonymous Gift for Prizes in the Auditing Laboratory Anonymous Gift for Prizes in the Auditing Laboratory Anonymous Gift for University Extension Salaries. Anonymous Gift for William Welsh Vibbert Memorial Anthonymous Gift for William Welsh Vibbert Memorial Anonymous Gift for William Welsh Vibbert Memorial Anthonymous Scholarship Gift. Department of Public Health. Department of Public Health. Auchincloss Gift for the Purchase of a Microphoto- meter for the Department of Chemistry. Anditing Laborator Assistance and Edupment of Alumistry.		\$71.57 10,872.10 885.63 1,026.11 50,049.17 1,400.00 50.00 350.00 100.00 2,404.16	\$25.00 \$25.00 41,000.00 200.00 7,500.00 5,900.00 100.00 100.00 150.00 1,800.00 150.00	\$71.57 25.00 11,497.85 41,000.00 200.00 8,385.63 1,026.11 5,900.00 52,460.24 1,400.00 150.00 150.00 250.00 250.00 1,800.00 150.00	\$71.53 25.00 6,169.18 1,000.00 1,969.94 350.00 50.00 100.00 1,750.20 1,750.20		\$.04 11,497.85 2,216.45 26.11 5,900.00 50,490.30 1,050.00 1,050.00 1,050.00 1,01.62 191.62
Additing Laboratory Assistance Suttermines			70.001	2000	7	:	

		K	e r	U	K	1 '	U		1	н	E	1	K	Ł	A	SU	K	EI	K			01
400.00	2,500.00	462.01		240.00	5.37	:	810.00	500.00	20,436.01		:	237.87			111.62	200 00	00:007*6	221.17	2.914.00	3,755.88	4,223.41	
							:	:														
	00.106	185.22	3,990.00			200.00	90.00	500.00	15,782.38		200.00	4.890.10	25.00	(1) 24.00		10 000 00	40,000,00	27,500.00	200.00		12,568.65	30.00
400.00	2,500.00	647.23	3,990.00	240.00	5.37	500.00	900.00	1,000.00	36,218.39		200.00	5,127.97	25.00	24.00	111.62	15 200 00	00:007'67	27,721.17	3,114.00	3,755.88	16,792.06	30,00
400.00	2,500.00		3,990.00	00'09		500.00		500.00	18,000.00			5,458.04	25.00			2 600 00	2000	25,000.00			18,416.01	30.00
		647.23		180.00	5.37		900.00	500.00	18,218.39		200.00			24.00	111.62	7 600 00		2,721.17	3,114.00	3,755.88		
					:							\$330.07									1,623.95	
Anonymous Gift for Scholarship in School of Architecture	Alumni Gift for General Support of University.	Bakelite Research Fellowship	Barnard College Residence Halls Service Barnard College Summer School Gift for Instruction	Barnard Medal	Bastedo Gift for School of Dentistry	Baum Gift for 1929 Summer Session Scholarship Benjamin Gift for Students' Aid in University	Extension	Blossom Scholarship Gift		Borzykowski Research Fellowship in Chemical	EngineeringBush Gift for Assistance and Sunnlies.—Department	of Philosophy.	Bush Gift for Philosophy-Work in Religion	Bush Gift for Special Scholarships		Carnegie Corporation Gift for Scholarships and Fellowships in the Arts	Carnegie Corporation Gift for School of Library	Service	Carnegle Copporation Gift for Training Librarians (Summer Session)	Carpentier Gift for Humane Education	Casa Italiana Maintenance Gift	Council

	*						
ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30,	Received 1928–1929	Total Credits	Expended 1928-1929	Debit Balances June 30, 1929	Credit Balances June 30,
Chandler Museum Maintenance Fund Chaple Organ Gift. Chaple Organ Gift. Chaplain's Assistance Gift. Chaplain's Assistance Gift. Chaplain Gift Toward Expenses of the Committee on Funds. Check Guarantee Gift. Chemical Engineering Equipment Gift Chemistry, Gift for Repairs to Ward Truck Civil Engineering Fire Testing Station Color of 1912 Gift for Columbiana Cochran (Alexander Smith) Gift for Research and Publication in the Department of Indo-Iranian Languages. Columbian Gift. Columbian Gift. Columbia College Scholarship Aid. Columbian College Scholarship Aid. Columbia House Maintenance Gift. Columbia House Maintenance Gift. Columbia University Club Scholarship Gift. Commowealth Fund for Legal Research. Economic Conditions.		\$702.21 630.55 44.97 632.95 50.00 14.95 3,516.24 100.00 100.00 25.	\$600.00 281.00 2,389.98 3,228.63 420.00 105.00 6,000.00	\$702.21 600.00 911.55 44.97 50.00 632.95 2.439.98 6,744.87 420.00 100.00 25.00 25.00 25.00 6,000.00 2.39 3,000.00	\$600.00 21.00 31.25 2.439.98 11.938.31 56.00 5,000.00 6,000.00		\$702.21 890.55 44.97 601.70 601.70 41.00 44.00 5,422.08 130.00 25.00 25.00 27.16 2.39
ing)ing)			1,250.00	1,250.00	1,250.00		

	Debit	Credit				Debit	Credit
ACCOUNTS	Balances June 30, 1928	Balances June 30, 1928	Received 1928–1929	Total Credits	Expended 1928-1929	Balances June 30, 1929	Balances June 30, 1929
Institute of Arts and Sciences—Gift		\$75.00	\$1,575.00	\$1,650.00	\$1,650.00		
Institute of Cancer Kesearch Gut—Departmental Expenses			2,491.41	2,491.41	2,491.41	:	
Institute of Criminology		:	5,000.00	5,000.00	90.76		\$4,902.94
Tenian Research Tackson (A. V. W.) Gift for University Extension		500.00	:	500.00			500.00
Library	:	:	250.00	250.00	250.00		
	:	547.64		547.64	351.75		195.89
Jones (John D.) Scholarship		200.00	200.00	400.00	200.00		200.00
ournal of Cancer Research Gift		2,383.16	3,156.50	5,539.66	4,049.36		1,490.30
Kane Gift for Religious Work		102.65		102.65	16.68		85.97
King Gift for Printing Old Minutes of College	:	159.66	:	159.66			159.66
Lantern Slides-Department of University Extension							
	:		110.00	110.00			110.00
Law School Mimeographing Account—Gift	:		2,965.05	2,965.05	656.81		2,308.24
Lee Gift for Department of Indo-Iranian Languages		1,942.96	97.14	2,040.10	1,942.96		97.14
Lee Second Gilt for Department of Indo-framan		5 003 75	254.68	5 318 43	012 78		4.415.65
Lee (Mrs. Frederic S.) for Department of Romance				21.01.01		:	20:04:4
		74.60		74.60	30.42		44.18
Lee Gift for Romanic Review	:		250.00	250.00	206.00		44.00
Legislative Drafting Research Fund		3,238.43	9,512.83	12,751.26	7,446.46		5,304.80
Library		1,983.56	:	1,983.56	588.77		1,394.79

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30,	Received 1928–1929	Total Credits	Expended 1928–1929	Debit Balances June 30, 1929	Credit Balances June 30,
Pennsylvania Club of 1928 Gift for Scholarship 1929							
Summer Session			\$150.00	\$150.00			\$150.00
Prentice Gift for Rowing	:	\$5,000.00		5,000.00			5,000.00
President's Anonymous Gift			2,000.00	2,000.00			2,000.00
President's Special Gifts		180,418.03	26.80	180,474.83	(5) 180, 474.83		
Publications in the Indo-Iranian Series		1,382.80	69.14	1,451.94		:	1,451.94
Publishing "Studies in Post-War France"			1,000.00	1,000.00			1,000.00
Ramsey Gift for Tuition Fees in University Extension			114.00	114.00			114.00
Renovation of 1882 Memorial Windows		75.00		75.00			75.00
Research in Social Science			34,317.41	34,317.41	34,317.41		
Roberts Gift for Law School Scholarships		500.00		500.00			500.00
Rockefeller (Laura Spelman) Gift for Social Research							
in France		5,371.26	:	5,371.26	\$2,600.83		2,770.43
Rockefeller (Laura Spelman) Gift for Social Science							
Research	:	29,238.94	59,727.06	88,966.00	63,494.85		25,471.15
Rockefeller (Laura Spelman) Gift for Study of							
Familial Law			15,820.91	15,820.91	18,495.34	2,674.43	
Rockefeller (Laura Spelman) Memorial Gift for Re-							
search Work in Legal Education		:	:		5,000.00	5,000.00	
Romanic Review Reserve Fund	:	1,140.58	57.02	1,197.60			1,197.60
Institute of Roumanian Culture Gift		865.30	43.26	908.56	86.50		822.06
Royal Baking Powder Research Gift		2,555.39	1,000.00	3,555.39	2,354.98		1,200.41
Sackett (Henry W.) Scholarship	:	1,100.00	00.009	1,700.00	00.009		1,100.00
Sale of Gould Boat House		2.00	: : : : : : : : : : : : : : : : : : : :	5.00			5.00
Sale of Syllabus—Summer Session			19.38	19.38	19.38		
Schermerhorn (Frederick A.) Gift No. 2		904,166.20	516,036.39	1,420,202.59	(6) 343,415.42		1,076,787.17
School of Architecture Gift		10.00		10.00			10.00
School of Business—Department of Accounting Gift.			20.00	20.00			20.00

					R	E	P C	R	Т		Ο.	F.	Т	Н	E		r I	K J	S E	1 5	; (J I:	C I	S]	K					0/
366.00			1,893.17		3.26	125.00		4 802 37				1.000.00	5.00	127.75		100.00		375.00	1,446.27	4,038.00	1.00			221.95	10.35	2,566.33				50.00
		55.00		1,099.99																										
	52.71		56.95	1,100.00	65.30			4 897 63	20.1	00 552 00					1,909.00	20,350.00	200.00	250.00	1,059.33	4,287.00	: : : : : : : : : : : : : : : : : : : :	10.00		113.05	1,105.14	184.08		325.00	150.00	1,416.57
366.00	52.71	Dr. 55.00	1,950.12	.01	68.56	125.00		00 000 0	2,100.00	2 255 00	21.60	1.000.00	5.00	127.75	1,909.00	20,450.00	200.00	625.00	2,505.60	8,325.00	1.00	10.00		335.00	1,115.49	2,750.41		325.00	150.00	1,441.69
	52.71	Dr.		873.53	3.26			0 200 00	2,100.00						1,800.00	20,350.00	200.00	250.00	1,327.20	3,336.00		10.00		205.00	766.45	696.18		325.00	150.00	1,000.00
366.00			1,950.12		65.30	125.00				000 330 0	21.60	1.000.00	5.00	127.75	109.00	100.00		375.00	1,178.40	4,989.00	1.00			130.00	349.04	2,054.23				441.69
		\$55.00		873.52					:								:	:::::::::::::::::::::::::::::::::::::::			:	:							:	
School of Dental and Oral Surgery Museum Gift	School of Library Service—Departmental Appropriation Gift.	School of Mines. Engineering and Chemistry	Selieman (Isaac N.) Gift.	Scligman Gift for Adler Salary	Smith (Edna L.) Fellowship Gift	Smith Gift for Maison Francaise.	Social Science Research Council Gift for Investigation	of Methods of Formal Accusation in Criminal		Social Science Research Council Gift for Study of	Canaial Equipment Cift — I throw	Special Publications Cife	Stadium Gift	Stander (Philip) Memorial Gift	State Aid to Blind Pupils	State Scholarships	Stevens Institute Gift for McKim Fellowship	Stroock (Louis S.) Scholarship Gift	Summer Session Gift for Entertainment	Summer Session Scholarship Gift	Support of Graduate Schools	Support of the Law School	Sutliff (Mary Louisa) Gift for Purchase of Books	(School of Library Service)	Syllabus Fund for the School of Business	Syllabus Fund for University Extension	University Extension-Administration and Instruc-	tion Gift	University Extension Gift for Assistance in Accounting	University Extension Book Fund Gift

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30,	Received 1928–1929	Total Credits	Expended 1928–1929	Debit Balances June 30, 1929	Credit Balances June 30,
University Extension Typewriter Rentals. University Hall Gift. Vanderburgh (Frederick A.) Gift. Von Vollenhoven (G.) Gift. Walker Gordon Research Gift. Wolff (Dr. and Mrs. Meyer) for Special Scholarship Assistance. Workers in Industry Gift. Zoology Equipment Gift. Medical School Adler Gift for School of Medicine. Andern Abardom Departmental Appropriation Gift. Anatomy Departmental Appropriation Gift. Anatomy Publication Gift. Anatomy Smith Pituitary Gift. Anatomy Smith Pituitary Gift. Anonymous Gift for Tuberculosis Work at Bellevue Hospital. Association of the Alumni of the College of Physicians and Surgeons for Cleaning Portraits. Bacteriology—Milbank Infandile Paralysis Gift. Biological Chemistry—Chemical Foundation Gift	\$100.00	\$165.00 332.42 150.00 779.89 1,500.60 25.00 1,906.83 1,475.00 1,475.00 1,000.00 4,463.00	\$75.00 15.00 5.000.00 4,001.80 6,200.00 100.00 8000 1,716.80 4,408.49 179,472.22 25.00 25	\$240.00 10.00 347.42 150.00 5,779.89 5,501.80 25.00 100.00 1,716.80 4,408.49 1,475.00 1,716.80 1,716.80 1,716.80 1,716.80 1,716.80 1,716.80 1,4468.49 1,475.00 1,025.00 2,150.00 1,4463.00 20,000.00	(*) \$50.00 4,535.28 3,500.00 100.00 7,198.74 7,198.74 80.00 40.73 4,350.09 966.28 966.28 966.28 5,203.02 20,000.00		\$190.00 10.00 347.42 1.244.61 2.001.80 25.00 25.00 908.09 908.09 1,676.07 58.40 1,475.00 179,472.22 29,994.25 58.72 1,184.05 9,259.98
Biological Chemistry—Departmental Appropriation			172.10	172.10	172.10	;	

ACCOUNTS	Debit Balances June 30, 1928	Credit Balances June 30, 1928	Received 1928–1929	Total Credits	Expended 1928–1929	Debit Balances June 30,	Credit Balances June 30, 1929
Meyer (Dr. Alfred) Gift for Medical School Library. Mount Hope Farm Gift. Nutrition Research Gift. Opthalmology—Special Research Gift. Oto-Laryngological Gift. Pernicious Anemia Fund. Pharmacology—Pyridene Fund. Psychiatry Social Service Gift. Research Fellowship in Medicine. Research Fellowship in Medicine. Rosenthal Gift for Medical Mycology. Somith (Dr. Charles Hendec) Gift for the Department of Diseases of Children.		132.34 50.00 1,546.31 141.68	\$207.43 3.500.00 7,000.00 1,500.00 2,500.00 6,500.00 2,850.00	\$207.43 132.34 3,500.00 7,000.00 1,546.31 1,500.00 2,500.00 2,500.00 6,500.00 5,036.55	\$207.43 132.34 2.805.75 2,039.04 500.00 200.00 599.65 1,326.53 2,875.98		\$694.25 4,960.96 1,346.31 900.35 2,500.00 141.68 5,173.47 2,160.57 500.00
Special Instrument Fund. Special Instrument Fund. Start (M. Allen Gith) for Department of Neurology. Surgical Laboratory Supplies Gift. University Medical Officer Departmental Appropriation Gift. Wanger Melanin Gift—Pharmacology.		9.14 10,490.52 2,044.01	14,500.00 7.00 258.34 700.00	9.14 24,990.52 2,044.01 7.00 258.34 700.00	14,525.83 1,578.68 7.00 258.34 670.73		9.14 10,464.69 465.33
Wood Gift for Research in Bacteriology	\$2,989.54	\$1,515,579.21	\$1,832,827.17 \$3.345,416.84 \$1,712,470.06	4,510.75 \$3.345,416.84	\$1,712,470.06	\$13,478.47	\$1,646,425.25
			Less Transfers		\$521,785.66		

NOTES

TRANSFERS

(2) To Principal A. K. Cross Fund. 345.0 (3) To Dramatic Museum Gift. 12.3 (4) To Library—Purchase of Books and Serials. 99.7 (5) To University Land, Buildings and Equipment. 180,474.8 (6) To University Land, Buildings and Equipment. 343,415.4 (7) To Research in Social Science Gift. 2,255.0 (8) To University Extension Typewriter Equipment Gift. 50.0 (9) To Library—Purchase of Books and Serials. 150.0 (10) To University Land, Buildings and Equipment. 111,835.9 (11) To General Education Board Gift for the Equipment of a Research	(1)	To Post City for Assistance and Constitution Distriction	621.00
(3) To Dramatic Museum Gift 12.3 (4) To Library—Purchase of Books and Serials 99.7 (5) To University Land, Buildings and Equipment 180,474.8 (6) To University Land, Buildings and Equipment 343,415.4 (7) To Research in Social Science Gift 2,255.0 (8) To University Extension Typewriter Equipment Gift 50.0 (9) To Library—Purchase of Books and Serials 150.0 (10) To University Land, Buildings and Equipment 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics 375.0 (12) To University Land, Buildings and Equipment 529,647.0	(1)		\$24.00
(4) To Library—Purchase of Books and Serials 99.7 (3) To University Land, Buildings and Equipment 180,474.8 (6) To University Land, Buildings and Equipment 343,415.4 (7) To Research in Social Science Gift 2,255.0 (8) To University Extension Typewriter Equipment Gift 50.0 (9) To Library—Purchase of Books and Serials 150.0 (10) To University Land, Buildings and Equipment 111,835.9 (11) To General Education Board Gift for the Equipment of a Research	(2)	To Principal A. K. Cross Fund	345.00
(*) To University Land, Buildings and Equipment. 180,474.8 (*) To University Land, Buildings and Equipment. 343,415.4 (*) To Research in Social Science Gift. 2,255.0 (*) To University Extension Typewriter Equipment Gift. 50.0 (*) To Library—Purchase of Books and Serials. 150.0 (*) To University Land, Buildings and Equipment. 111,835.9 (*) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics. 375.0 (*) To University Land, Buildings and Equipment. 529,647.0	(3)	To Dramatic Museum Gift	12.36
(6) To University Land, Buildings and Equipment. 343,415.4 (7) To Research in Social Science Gift. 2,255.0 (8) To University Extension Typewriter Equipment Gift. 50.0 (9) To Library—Purchase of Books and Serials. 150.0 (10) To University Land, Buildings and Equipment. 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics. 375.0 (12) To University Land, Buildings and Equipment. 529,647.0	(4)	To Library—Purchase of Books and Serials	99.78
(7) To Research in Social Science Gift. 2,255.0 (8) To University Extension Typewriter Equipment Gift. 50.0 (9) To Library—Purchase of Books and Serials. 150.0 (10) To University Land, Buildings and Equipment. 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics. 375.0 (12) To University Land, Buildings and Equipment 529,647.0	(5)	To University Land, Buildings and Equipment	180,474.83
(8) To University Extension Typewriter Equipment Gift. 50.0 (9) To Library—Purchase of Books and Serials. 150.0 (10) To University Land, Buildings and Equipment. 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics. 375.0 (12) To University Land, Buildings and Equipment 529,647.0	(6)	To University Land, Buildings and Equipment	343,415.42
(*) To Library—Purchase of Books and Serials. 150.0 (10) To University Land, Buildings and Equipment. 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics. 375.0 (12) To University Land, Buildings and Equipment. 529,647.0	(7)	To Research in Social Science Gift	2,255.00
(10) To University Land, Buildings and Equipment 111,835.9 (11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics (12) 375.0 (12) To University Land, Buildings and Equipment 529,647.0	(8)	To University Extension Typewriter Equipment Gift	50.00
(11) To General Education Board Gift for the Equipment of a Research Laboratory in Bio-Physics	(9)	To Library—Purchase of Books and Serials	150.00
Laboratory in Bio-Physics. 375.0 (12) To University Land, Buildings and Equipment. 529,647.0	(10)	To University Land, Buildings and Equipment	111,835.96
(12) To University Land, Buildings and Equipment 529,647.0	(11)	To General Education Board Gift for the Equipment of a Research	
() == ================================		Laboratory in Bio-Physics	375.00
(13) To Principal of Columbia University Permanent Alumni Fund 22,000.0	(12)	To University Land, Buildings and Equipment	529,647.05
	(13)	To Principal of Columbia University Permanent Alumni Fund	22,000.00

\$1,190,684.40

SECURITIES OWNED FOR ACCOUNT OF SPECIAL ENDOWMENTS, GENERAL ENDOWMENTS AND DESIGNATED FUNDS

30, 1929 Value												
At June 30, 1929 Book Value				\$244,750.00	196,875.00	35,970.00	291,750.00	1,000.00	20,244,14	194,962.50	104,534.01	74,762.48
Decrease 1928–1929					:	\$8,370.00	:				\$137.40	
Increase 1928–1929									2,876.32			
At June 30, 1928 Book Value						27,600.00				194,962.50	104,671.41	74,762.48
At June Book				\$244,750.00	196,875.00	27,600.00	291,750.00	1,000.00	17,367.82	194,962.50	104,671.41	74,762.48
At June 30, 1929	Bonds	SCHEDULE I—RAILROAD	\$250,000 Baltimore & Ohio R. R. Co.'s S. W. Division 5 per cent First Mortgage Extended Bonds, due	1950	Mortgage Bonds, due 1967	300 000 Central Pacific Rev Co.'s Guaranteed S near cent	Bonds, due 1960.	1,000 Central K. K. Co. of New Jersey 5 per central 100 Vear General Mortgage Bonds, due 1987 20,000 Chicago, Indianapolis & Loniswille R. R. Co.'s	Series A, due 1966.	200,000 Cincago, Rock Island & Facine K. K. Co. S 4.72 200,000 Cincago, Rock Island & Facine K. K. Co. S 4.72 100,000 Chicago & Western Indiana R. R. Co. S 4.72	cent First and Refunding Mortgage Bonds. Series A due 1962. 75,000 Cleveland, Cincinnati, Chicago & St. Louis	R. R. Co.'s 5 per cent Refunding and Improvement Mortgage Bonds, due 1963

50,000.00	100,000.00	76,075.00	149,750.00	293,000.00	9,515.00	51,328.97	198,302.58	202,603.12	284,887.50	249,347.50	74,625.00	:	243,550.00	298,906.25	92,447.50
	:	:		:		120.83	81.64	123.96				10,000.00	:		:
					:	:		:		:					
50,000.00	100,000.00	76,075.00	149,750.00	293,000.00	9,515.00	51,449.80	198,384.22	202,727.08	284,887.50	249,347.50	74,625.00	10,000.00	243,550.00	298,906.25	92,447.50
50,000 Cleveland & Mahoning Valley Ry. Co.'s 5 per cent 50 Year Gold Bonds, due 1938	First Mortgage Gold Bonds, due 1947 (Guaranteed by Chicago & Northwestern Ry. Co.)	Mortigage Bonds, Series A, due 1953	Prior Lien Bonds, due 1996	and Refunding Mortgage Bonds, due 1974	ment Trust Certificates, due 1936	Debenture Bonds, due 1940	200,000 Great Mobiler Ny. Co. 8 3/2 per cent General Mortgage Gold Bondas, Series B, due 1952	First Mortgage Bonds, due 1950	300,000 Hudson & Manhattan Co.'s 5 per cent First Lien and Refunding Mortgage Bonds, due 1957	250,000 Illinois Central K. K. Co. s 5 per cent First and Refunding Mortgage Joint Bonds, due 1963	75,000 Lake Shore & Michigan Southern Ky. Co. s 4 per cent 25 Year Gold Bonds, due 1931	gage due 1940	290,000 Missouri, Ransas & Jexas K. K. Co. S 3 per cent. Prior Lien Bonds, Series A, due 1962	Source Ariseour Facine Ay. Co. s. 5 per cent First and Sefunding Mortgage Bonds, due 1977	cent Refunding and Improvement Mortgage Bonds, Series A, due 1952.

At June 30, 1929 Book Value	\$2,805.00	64,934.63	196,533.75	87,343.75	4,600.00	184,612.50	-	5,975.00	241,487.50	200,470.12		14,700.00	199,855.00	4,637.50
Decrease 1928–1929	:	\$38,579.01	:	:					:	08'6	22,000.00			
Increase 1928–1929			:											
At June 30, 1928 Book Value			75							92	00	:	:	4, 637.50
At Ji	\$2,805.00	103,513.64	196,533.75	87,343.75	4,600.00	184,612.50		5,975.00	241,487.50	200,479.92	22,000.00	14,700.00	199,855.00	4,637.
At June 30, 1929	3,000 New York Central & Hudson River Railroad Co.'s 6 per cent Conv. Debenture Bonds, due 1935	64,000 New York, New Haven & Hartford Railroad Co.'s 6 per cent Conv. Debenture Bonds, due 1948 200 000 Northern Pacific Rv. Co.'s 5 ner cent Refunding	and Improvement Mortgage Bonds, due 2047	Prior Lien Mortgage Bonds, Series A, due 1950.	5,000 St. Louis & San Francisco Ry. Co. s 5 per cent General Mortgage Bonds, due 1931	Project of Louis & Sain Francisco IV. Co. 8 3 pel cent. Project Lien Bonds, Series B, due 1950	o,000 St. Faul, Minneapolis & Manitoba Kailroad Co.'s 4½ per cent Consolidated Mortgage Bonds,	300.000 Southern Ry. Co.'s 4 per cent Development and	General Mortgage Bonds, Series A, due 1956	and Refunding Mortgage Bonds, due 1977	Mortgage Gold Bonds, due 1917 (Certificates of Deposit)	15,000 Union Pacific R.R. Co.'s 4 per cent First Mort-gage R. R. and Land Grant Bonds, due 1947	200,000 Virginian Ry. Co.'s 5 per cent First Mortgage Bonds, Series A, due 1962.	S,000 Wadsh Kalifoad Co, 8.5 per cent 50 Year First Mortgage Bonds, due 1939

	\$5,124,900.57															
201,319.27 89,000.00 87,440.00	\$5,124,900.57			\$194,625.00	295,593.75		98,250.00		168,721.50	78,110.32	46 125 00		99,160.00	100,250.00	199,000.00	99,500.00
131.93	\$71,184.57									\$117.25				12.50		
	\$11,246.32.								:							
	\$5,184,838.82															
201,451.20 89,000.00 87,440.00	\$5,184,838.82			\$194,625.00	295.593.75		98,250.00		168,721.50	78,227.57	46 125 00	00:571:04	99,160.00	100,262.50	199.000.00	99,500.00
200,000 Wabash Railroad Co.'s 5 per cent 50 Year Second Mortgage Bonds, due 1939		Bonds	SCHEDULE II—PUBLIC UTILITY	\$200,000 Alabama Power Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1951	303,000 American Telephone & Telegraph Co.'s 5 per	100,000 Atlantic City Electric Co.'s 5 per cent First and	Refunding Mortgage Gold Bonds, due 1956	220,000 brooklyn-Manhattan Iransit Corporation s 6 per cent Sinking Fund Gold Bonds, Series A,	due 1968	76,000 Brooklyn Umon Gas Co. s o per cent First Lien & Refunding Mortgage Bonds, Series A, due 1947	50,000 Commonwealth Edison Co.'s 5 per cent First	100,000 Denver Gas & Electric Co.'s 5 per cent First	Mortgage Bonds, due 1949	100,000 Detroit Edison Co.'s 5 per cent General Mort-gage Bonds, due 1949	200,000 Georgia Power Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1967	100,000 Great Western Power Co.'s 5 per cent First Mortgage Bonds, due 1946

At June 30, 1929 Book Value		16																
At June Book		\$241,659.75	107,948.75	99,750.00	99,625.00	14,868.75	150 511 78		191,625.00		149,525.00	87,815.00		98,967.50		98,031.25	97,886.00	
Decrease 1928–1929							6704 44										82.00	
Increase 1928–1929				99,750.00														
At June 30, 1928 Book Value																	07,968.00	
At June Book		\$241,659.75	107,948.75	99,750.00	99,625.00	14,868.75	160 377 77		191,625.00		149,525.00	87,815.00		98,967.50		98,031.25	97,968.00	
At June 30, 1929	249,000 Louisville Gas and Electric Co.'s 5 per cent First and Refunding Mortgage Bonds. Series A. due	1952	solidated Mortgage Gold Bonds, due 1990	100,000 Mempins Fower & Light Co. 8 5 per cent First and Refunding Mortgage Bonds, due 1948	100,000 Mississippi River Power Co.'s 5 per cent Gold Bonds, due 1951	15,000 New York & East River Gas Co.'s 5 per cent First Mortgage Gold Bonds, due 1945	150,000 New York Edison Co.'s 6½ per cent First Lien	200,000 New York Power & Light Corporation's 41/2 per	cent First Mortgage Gold Bonds, due 1967	150,000 Niagara, Lockport & Ontario Power Co.'s 5 per cent First and Refunding Mortgage Bonds, Series	A, due 1955.	100,000 Ohio Power Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1952	100,000 Pacific Gas & Electric Co.'s 5 per cent First and Refunding Mortgage Bonds, Series D, due	100 000 Parifor Can & Floretin Co. 15 Fore and Consent	and Refunding Mortgage Bonds, Series A, due	1942	and Refunding Mortgage Bonds, due 1952	

At Inne 30, 1929	At June	At June 30, 1928	Increase	Decrease	At June 30, 1929	30, 1929	li .
	Book	Book Value	1928–1929	1928–1929	Book Value	Value	1
Bonds							
SCHEDULE IV—INDUSTRIAL							
129,000 Aluminum Company of America 5 per cent Sinking Fund Debeuture Bonds, due 1952	\$199,990.63			\$71,000.00	\$128,990.63		
First Mortgage Bonds, Series A, due 1947	104,229.80			64.72	104,165.08		
First Mortgage Bonds, due 1939	92,488.75				92,488.75		
200,000 Batavian Petroleum Co.'s 4½ per cent Debenture Bonds, due 1942	187,975.00				187,975.00		
funding Truck Co. 3 / 2 pt. Con. First and Ac- funding Truck Co. 3 / 2 pt. Con. First 3 000 Bush Tempinal Building Co. 5 co. 7 con. First	203,703.70			148.15	203,555.55		
Mortgage Sinking Fund Bonds, due 1960	2,813.25	•			2,813.25		
5,000 Chesenough Building Co. 8 o per cent First Mortgage Sinking Fund Bonds, due 1948	2,990.00				2,990.00		
due 1947.	95,125.00				95,125.00		
Bonds, due 1942	42,600.00		\$525.00		43,125.00		
cent First Mortgage Sinking Fund Fee Bonds, due 1938	1,990.00			:	1,990.00		
100,000 General Motors Acceptance Corporation's 6 per cent Debenture Bonds, due 1937	100,000.00			:	100,000.00		
ture Bonds, due 1937	199,875.00	199,875.00			199,875.00		

	189,500.00	-	44,428.28		100,282.25			_	166.67			1,400.00		4,975.00		101,127.78			3,000.00		198,500.00		3,900.00	9	01:144,102	\$169,565.93 \$2,011,814.42 \$2,011,814.42	
-			44,4		100,2											101,1									6,102	\$2,011,8	
			20.39		6.27		98,250.00					-				46.99											
																										\$525.00	
	:				_:	-								_												\$2,180,855.35 \$2,180,855.35	
	189,500.00		44,448.67		100,288.52		98,250.00		166.67			1,400.00		4,975.00		101,174.77			3,000.00		198,500.00		3,900.00	301 470 50	60.01#,102	\$2,180,855.35	
200 000 Inland Stool Co 's Alf nor cont Eiret Mortman	Bonds, due 1978	44,000 Lackawanna Steel Co.'s 5 per cent First Con-	solidated Mortgage Bonds, due 1950	100,000 Lehigh Valley Coal Co.'s 5 per cent First and	Refunding Mortgage Bonds, due 1974	Montgomery Ward Properties 5 per cent First Mort-	gage Bonds, due 1946	1,666.67 New England Investment & Security Co.'s	Certificate of Indebtedness	1,400 Norfolk (Conn.) Country Club Realty Corpora-	tion's 5 per cent First Mortgage Gold Bonds, due	1937	5,000 Park Row Realty Co.'s 6 per cent First Mortgage	Sinking Fund Bonds, due 1943	100,000 Republic Iron & Steel Co.'s 51/2 per cent Refund-	ing and General Mortgage Bonds, due 1953	3,000 Savoy Plaza Corporation's 6 per cent First Mort-	gage Fee and Leasehold Sinking Fund Bonds, due	1945	200,000 Shell Union Oil Corporation's 5 per cent Sinking	Fund Debenture Bonds, due 1947	4,000 State Randolph Building 5 1/2 per cent First Mort-	gage Sinking Fund Bonds, due 1942	200,000 Youngstown Sheet & Tube Co.'s 5 per cent First	Mortgage Bonds, due 1978		

At June 30, 1929	At June Book	At June 30, 1928 Book Value	Increase 1928–1929	Decrease 1928–1929	At June 30, 1929 Book Value	80, 1929 Zalue
Bonds						
SCHEDULE V—FOREIGN GOVERNMENT						
111,500 State Mortgage Bank of Jugo-Slavia 7 per cent Sinking Fund Gold Bonds, due 1957	\$60,622.50	:	\$36,765.00		\$97,387.50	
	\$60,622.50	\$60,622.50	\$36,765.00		\$97,387.50	\$97,387.50
SCHEDULE VI						
UNITED STATES GOVERNMENT				-		
1,000 United States of America First Liberty Loan 4),7 per cent Bonds, due 1932 to 1947	\$1,000.00			:	\$1,000.00	
8,300 United States of America Fourth Liberty Loan 4¼ per cent Bonds, due 1938	8,264.44	8,264.44	\$48.55		8,312.99	
38,000 United States of America 41/4 per cent Treasury Bonds, due 1947 to 1952	7,411.68	7,411.68	32,705.49		40,117.17	
	\$16,676.12	\$16,676.12	\$32,754.04		\$49,430.16	\$49,430.16
Stocks						
SCHEDULE I—RAILROAD						
500 shares Atchison, Topeka & Santa Fe Railroad Co. Preferred	\$89,356.25 256,250.00 77,925,50 444,665.00	\$89,356.25 \$44,937.50 256,250.00 46,704.70 77,925.50 444,665.00		\$44,937.50 46,704.70	\$44,418.75 209,545.30 77,925.50 444,665.00	

	\$2,121,304.18				_			\$416,854.03			
137,839.15 129,628.25 5,707.12 519,240.01 110,625.00 235,662.50 206,047.60	\$2,121,304.18		\$1.00	84,058.02 45,500.00	77,875.00 54,543.75	44,650.00 101,900.00	8,326.26	\$416,854.03			\$123,262.50 119,312.50
524.02	\$167,166.22			\$18,326.00				\$18,326.00			\$25,200.00
	\$2,288,470.40						:	\$435,180.03			25,200.00 129,312.50
137,839.15 129,628.25 6,231.14 519,240.01 110,625.00 235,662.50 281,047.60	\$2,288,470.40		\$1.00	102,384.02	54,543.75	44,650.00	8,326.26	\$435,180.03			\$123,262.50 25,200.00 119,312.50
1,183 shares Illinois Central Railroad Co. Capital 1,000 shares Louisville & Nashville Railroad Co. Capital		SCHEDULE II—PUBLIC UTILITY	par value)	Preferred	800 shares Duquesne Light Co. Preferred 500 shares Electric Bond & Share Co. Preferred	1,000 shares Manhattan Railway Co. M. G 1,000 shares Rochester Gas & Electric Co. Preferred	166 shares Worcester Consolidated Street Railway Co. First Preferred		Stocks	SCHEDULE III—INDUSTRIAL	1,000 shares American Can Co. Preferred

At June 30, 1929	At June 30, 1928 Book Value	30, 1928 Value	Increase 1928–1929	Decrease 1928–1929	At June 30, 1929 Book Value	0, 1929 alue
1.000 shares American Smelting & Refining Co. Pre-						
ferred	\$115,387.50				\$115,387.50	
Preferred				\$19,422.00		
88 92/100 shares Consolidation Coal Co. of Mary-						
land, Capital	6,313,32				6,313.32	
50 shares Corn Products Refining Co. Preferred	64,950.00			58,350.00	00.009'9	
1,200 shares Crocker Wheeler Electric Manufacturing						
Co. Preferred	110,400.00				110,400.00	
100 shares Cuba Cane Sugar Co. Preferred	8,000.00				8,000.00	
1,000 shares Endicott, Johnson Co. Preferred	117,572.50				117,572.50	
25 shares General Electric Co. "Special"	293.76				293.76	
1,000 shares General Motors Co. Preferred	117,750.00		:		117,750.00	
1,644 shares Glen Alden Coal Co. Capital	51,423.50		:		51,423.50	
290 shares B. F. Goodrich Co. Preferred	7,377.20				7,377.20	
International Harvester Co. Preferred	121,875.00		:	121,875.00		
Jewel Tea Co. Preferred	7,122.80			7,122.80		
110 shares Lawyers Mortgage Co. Capital	3,570.00		:		3,570.00	
10 shares Manati Sugar Co. Common	971.43				971.43	
13 shares Norfolk Country Club Common	1.00				1.00	
135 shares Rolfe Coal Mining Co. Common (\$25 par						
value)	1,687.50				1,687.50	
106 shares Rolfe Coal Mining Co. Preferred (\$25 par						
value)	2,650.00				2,650.00	
2 shares Samarkand, Capital	1.00				1.00	
500 shares United States Steel Co. Preferred	126,587.50			63,575.00	63,012.50	
Woodsum Steamboat Co. Capital (\$50 par value)	45.00		:	42.00		
	\$1,151,176.01	\$1,151,176.01		\$295,589.80	\$855,586.21	1
						\$855,586.21

\$100.00	\$294,795.05
\$100.00	\$1.00 3.00 1.00 1.00 100,000.00 1.00 1.500.00 1.500.00 1.500.00
\$27,763.83	
	\$1.00 1.00 193,279,05 \$193,281.05
\$88,782.26	\$101,514.00
\$27,763.83 60,918.43 100.00 \$88,782.26	\$3.00 1.00 100,000.00 4.00 1.00 1.500.00 \$101,514.00
Stocks SCIIEDULE IV—BANK AND TRUST COMPANY Bankers Trust Co. Capital	Agreement with Greenberg, Publisher, Inc. Agreements with Macmillan Co Agreement with Charles Scribner's Sons Contract with Westinghouse Electric & Manufacturing Co New York Life Insurance Co. Policy 4 shares Clinton Hall Association & Mercantile Library Capital Stock. 1 share New York Historical Society Stock 1 share New York Society Library Stock. Trust Agreements. Stock in Affiliated Corporations.

At June 30, 1929 Book Value																
At June Book		\$79,000.00	76,700.00	71,000.00	375,000.00	60,000.00	308,000.00	448,000.00	00 000 000	03,000.00	190,000.00	117,000.00	15,680.00	4,000.00	00 000 00	285,000.00
Decrease 1928–1929		\$3,000.00	4,000.00	2,000.00		:	10,500.00		00 000 0	2,000.00		3,000.00	320.00			285,000.00
Increase 1928–1929		:				\$60,000.00	:				190,000.00				30 000	
At June 30, 1928 Book Value				:			:		-							
At June Book		\$82,000.00	80,700.00	73,000.00	375,000.00		318,500.00	448,000.00		85,000.00		120,000.00	16,000.00	4.000.00	000	31,300.00
At June 30, 1929	Bonds and Mortgages	On 360-372 Avenue "A," New York, at 6 per cent due 1934	On Amsterdam Avenue and 167th Street, New York, at 6 per cent, due 1933	On 2479-2491 Amsterdam Avenue, New York, at 6 per cent, due 1933	On 26-28 Beaver Street, New York, at 5½ per cent, due 1934.	On 188 Bowery, New York, at 6 per cent, due 1931	On 113-115 Broad Street, New York, at 6 per cent due 1930	On 503-11 Broadway, New York, at 5½ per cent, Open Mortgage	On 506-28 Cherry Street, New York, at 6 per cent, due	On 21 Claremont Avenue, New York, at 5 per cent.	Open Mortgage	On 29-31 Claremont Avenue, New York, at 6 per cent, due 1924.	On Delafield Avenue, Riverdale, New York, at 5½ per cent. due 1933	On east side of West 6th Street, Brooklyn, New York, at	On 812 Eighth Avenue, New York, at 51/2 per cent, due	On Eleventh Avenue between 18th and 19th Streets, New York, at 6 per cent, due 1933

4,000.00	4,000.00	00.000.00		:	5,000.00	369,000.00	200,000.00	33,750.00		373,920.00	15,250.00	00 00 00	774,300.00	225,000.00		3,000.00			50,000.00	00000	2,000.00
			365,000.00	18,000.00		10,000.00				9,500.00	750.00						70,000.00		4,000.00		
							200,000.00														
				:																	2,000.00
4,000.00	4,000.00	00.000,0	365,000.00	18,000.00	5,000.00	379,000.00		33.750.00		383,420.00	16,000.00	0000	274,500.00	225,000.00		3,000.00	70,000.00		54,000.00		2,000.00
On 882 Faile Street, Bronx, New York, at 5½ per cent, due 1932.	On 886 Faile Street, Bronx, New York, at 3/2 per cent, due 1930.	On 890 Paile Street, Bronx, New York, at 3 % per cent, due 1930	On 529 Fifth Avenue New York, at prevailing interest	rate, Open Mortgage	Vork, at 5½ per cent, due 1931	York, at 5½ per cent, due 1933	On 131-145 Flatbush Avenue, Brooklyn, New York, at 6 per cent, Open Mortgage	On 293 Front Street and 133 Roosevelt Street, New York, at 5½ per cent. due 1932	On 106-108 Fulton Street, New York, at 5 per cent, due	1930	On 280 Fution Street, Brooklyn, New York, at o per cent, Open mortgage	On 12 Gold Street and 14-20 Platt Street, New York, at	o per cent, due 1930On 609-13 Greenwich Street, 120-128 Leroy Street, New	York, at 5½ per cent, due 1930	On Jefferson Avenue, Richmond Hill, New York, at 51/2	per cent, due 1930	New York, at 6 per cent, due 1928	On 34 Laight Street and 13 Vestry Street, New York, at	51/2 per cent, due 1934	On south side of Lexington Avenue, Brooklyn, New York,	at 5 1/2 per cent, due 1930

At June 30, 1929 Book Value															
At June Book	\$380,000.00	21,000.00	2,800.00	118,575.00	286,000.00	17,000.00	29,000.00	10,000.00	49,000.00	300,000.00	100,000.00	15,000.00	15,000.00	250,000.00	163,000.00
Decrease 1928–1929	\$8,000.00		:	2,550.00	14,000.00	3,000.00	1,000.00			300,000.00					26,000.00
Increase 1928–1929		\$21,000.00			300,000.00			10,000.00	49,000.00	300,000.00				10,000.00	189,000.00
At June 30, 1928 Book Value															
At June Book	\$388,000.00		2,800.00	121,125.00		20,000.00	30,000.00				100,000.00	15,000.00	15,000.00	240,000.00	189,000.00
At June 30, 1929	On 800 Madison Avenue, New York, at 5½ per cent, due 1931	On 1723 Matthews Avenue Bronx New Vork at 6 ner	cent, Open Mortgage.	New York, at 6 per cent, due 1930On Morningside Drive, 117th to 118th Streets. New	York, at prevailing rate, Open Mortgage	rate, Open Mortgage	On 68 Murray Street, New York, at prevailing interest rate, Open Mortgage	On 70 Murray Street, New York, at prevailing rate, Open Mortgage	On 136 Newark Avenue, Jersey City, New Jersey, at 6 per cent, due 1934	On northeast corner 134th Street and Riverside Drive, New York, at 6 per cent, due 1934	On 115th Street & Amsterdam Avenue, at prevailing interest rate. Open Mortgage	On 91-93 Park Row, New York, at 5½ per cent, Open Mortgage	On 93 Park Row, New York, at 5½ per cent, Open Mortgage	On 430 Kiverside Drive, New York, at 3/2 per cent, due 1934.	On 460-464 Riverside Drive, New York, at prevailing interest rate, Open Mortgage

_	291,000.00	209,000.00	25,000.00		247,500.00		:	00	485,000.00	125,000.00		88,000.00		250,000.00		33,000.00		:	-	106,000.00		270,000.00		225,000.00		71,000.00		286,250.00	(00.000.00
-										125,0								c				270,0								
_	00.000.00	4,000.00	:	· · · · · · · · · · · · · · · · · · ·			. 50,050.00	30000	. 10,000.00					. 125,000.00				. 17,000.00				:						7,500.00		-
_					247,500.00							88,000.00				33,000.00				106,000.00				:		71,000.00				
_										-																				::::::::::::::::::::::::::::::::::::::
	300,000.00	213,000.00	25,000.00	20.000,00			50,050.00	00 000	495,000.00	125,000.00				375,000.00				17,000.00		:		270,000.00		225,000.00				293,750.00		00.000.00
	On northeast corner Riverside Drive and Payson Avenue, New York, at 5 ½ per cent, due 1932	Ju 117-125 Seventh Avenue, New York, at 9 per cent, due 1930	On 28 South Street, New York, at 5½ per cent, due 1934 on 53 South Street, New York, at 5½ per cent, due 1930	In 289-291 Third Avenue and 205-215 East 22nd Street,	New York, at 5½ per cent, due 1933	In 52-56 Thompson Street, New York, at 51/2 per cent,	due 1928	In 780-786 Twelfth Avenue, New York, at 5½ per cent,	00 78-80 Walker Street New York at \$1% per cent due	1930.	On 771-775 Washington Street, New York, at 51/2 per	cent, due 1935	In West Broadway, Reade to Duane Street, New York,	at 51/2 per cent, due 1931	In 745-747 East 6th Street, New York, at 51/2 per cent,	due 1931	On 238 East 15th Street, New York, at 51/2 per cent, due	1928	On 133-137 East 16th Street, New York, at 512 per	cent, due 1933	On 3-7 East 27th Street, New York, at 51/2 per cent, due		On 20 East 31st Street and 15-19 East 30th Street, New	York, at 5½ per cent, due 1931	408-418 East 48th Street, New York, at 6 per cent,	due 1934	1 East 64th Street, New York, at 51/2 per cent, due		On 522-24 East 81st Street, New York, at 6 per cent, due	

Decrease At June 30, 1929 1928–1929 Book Value	\$104,500.00	5,000.00 \$330,000.00	6,000.00	750.00 72,000.00	140,000.00	10,000.00 355,000.00	750.00 95,350.00	18,000.00 350,000.00	10,000.00 455,000.00	10,000.00 365,000.00	279,000.00	1,000.00 290,000.00	7,500.00 227,500.00	3,450.00 121,650.00	45,000.00
				:	:						:				\$45,000.00
Increase 1928–1929					:	:	:						: : :		
At June 30, 1928 Book Value					0			0.	0	0			0	0	
At Ju Bo	\$104,500.00	335,000.00	6,000.00	72,750.00	140,000.00	365,000.00	96,100.00	368,000.00	465,000.00	375,000.00	279,000.00	291,000.00	235,000.00	125,100.00	-
At June 30, 1929	On 412-422 East 90th Street, New York, at 6 per cent, due 1930	due 1933. On 171 East 107th Street, New York, at 5½ per cent, due	1932On 168-174 Fast 116th Street New York at \$12 ner cent	On 136-140 West 23rd Street, New York, at 515 per	cent, due 1933	due 1930	On 6-8 West 32nd Street. New Vork at 515 per cent.	due 1934. On 254.8 West 35th Street New York at 517 nar cent	On 335,43 West 35th Street New Vorb of 615 nor cent	due 1932	due 1929	due 1930	due 1931	due 1929	cent, due 1933

						• • • • • • • • • • • • • • • • • • • •								211,500.00																				
		<u>:</u>						_	_			_		_	_	:		_ :		_:	_	_		_						:		:		:
		35,000.00		38,000.00		30,000,00		9,000.00		7,000.00		14,000.00		4,500.00		16,000.00		11,000.00		40,000.00		31,000.00		38,000.00		15,000.00		10,000.00		50,000.00		58,000.00	24.000.00	
•						:																										:		
												:										:												
		35,000.00		38,000.00		30,000.00		00.000,6		7,000.00		14,000.00		216,000.00		16,000.00		11,000.00		40,000.00		31,000.00		38,000.00		15,000.00		10,000.00		50,000.00		58,000.00	24.000.00	
	On 15 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 17 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 25 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 27 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 31 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 35 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 38-40 West 48th Street, New York, at 51/2 per cent,	due 1930	On 45 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 47 West 48th Street, New York, at prevailing interest	rate, Open Mortgage	On 16 West 49th Street, New York, at prevailing interest	rate, Open Mortgage	On 17 West 49th Street, New York, at prevailing interest	rate, Open Mortgage	On 22 West 49th Street, New York, at prevailing interest	rate, Open Mortgage	On 35 West 49th Street, New York, at prevailing interest	rate, Open Mortgage	On 7 West 50th Street, New York, at prevailing interest	rate, Open Mortgage	On 9 West 50th Street, New York, at prevailing interest	rate, Open Mortgage	On 11-13 West 50th Street, New York, at prevailing in-	terest rate, Open Mortgage	On 29 West 50th Street, New York, at prevailing interest rate. Open Mortgage	

At June 30, 1929	At June Book	At June 30, 1928 Book Value	Increase 1928-1929	Decrease 1928-1929	At June 30, 1929 Book Value
On 30 West 50th Street, New York, at prevailing interest rate, Open Mortgage.	\$32,000.00			\$32,000.00	
rate, Open Mortgage	36,000.00			36,000.00	
Target Son Strength Act and the promise section of the strength Act and	25,000.00		:	25,000.00	: : : : : : : : : : : : : : : : : : : :
On 69 West, 20th Street, New York, at prevaining interest rate Open Mortgage.	15,000.00		:	15,000.00	:
rate, Open Mortgage	14,000.00			14,000.00	:
On 10 west 51st Street, New York, at prevaining interest rate, Open Mortgage.	46,000.00			46,000.00	:
On 44 West 51st Street, New York, at prevaiing interest rate Open Mortgage	15,000.00			15,000.00	:
On over the Arrange of the Arrange o	23,000.00			23,000.00	
On 62 West 51st Street, New York, at prevailing interest rate, Open Mortgage.	14,000.00			14,000.00	
1930 M. S. Colli Street, New York, at 3 pet cent, due	175,000.00	:			\$175,000.00
Street, New York, at 5½ per cent, due 1931	250,000.00				250,000.00
1927 West 101st Street, New York, at 0 per cent, due	66,700.00			66,700.00	:
on 404 West 110th Street, Ivew York, at prevaining inter- est rate, Open Mortgage	90,000.00		:	3,000.00	87,000.00
1932 West Moth Street, INEW YOR, at 0 per cent, and 1932	225,000.00		:		225,000.00
on 424-450 West flour Street, New York, at prevaining interest rate, Open Mortgage	141,000.00			15,000.00	126,000.00

			13,833,527.07			\$11,000.00									
86,500.00		1,220,102.07	\$13,833,527.07	\$10,000.00	1,000,00	11,000.00		2,500.00		2,000.00	2,000.00	2,500.00	1,000.00	20,000.00	5,000.00
4,500.00	75,000.00		\$1,764,820.00						\$500.00			:			5,000.00
		1,220,102.07	\$3,274,102.07	:											
			\$12,324,245.00	:		\$11,000.00								:	
91,000.00	75,000.00		\$12,324,245.00	\$10,000.00	1,000.00	11,000.00		2,500.00	500.00	2,000.00	2,000.00	2,500.00	1,000.00	20,000.00	5,000.00
On 153rd Street, west of Broadway, New York, at 6 per cent, due 1929.	On property at Island Beach, New Jersey, at 0 per cent, due 1928.	on Hopertes in Open Estate, New York, at prevairing rate, Open Mortgage	Guaranteed Certificates	By Title Guarantee & Trust Co. of New York, at 5½ per cent, due 1932	by 11the Gualantee & 11thst Co. 01 New York, at 572 per cent, due 1930	Participation Certificates	(Guaranteed by Lawyers Mortgage Co.)	On 100 West 144th Street, New York, at 5½ per cent, due 1929.	On 210-14 East 28th Street, New York, at 5 ½ per cent, due 1929.	on notes Bronx, New York, at 51/5 per cent, due 1929.	On south side of Perry Avenue, near 203th Street, Bronx, New York, at 5½ per cent, due 1931	On west side of Morris Avenue, near Burnside Avenue, Bronx, New York, at 51% per cent, due 1931	On west side of Fulton Avenue, near East 172nd Street, Bronx, New York, at 5½ per cent, due 1931	On west side of Rochambeau Avenue, near East Gun Hill Road, Bronx, New York, at 5½ per cent, due 1932	On northwest corner East 193rd Street and Decatur Avenue, Bronx, New York, at $5/2$ per cent, due 1931.

						The second secon
At June 30, 1929	At June Book	At June 30, 1928 Book Value	Increase 1928-1929	Decrease 1928-1929	At June Book	At June 30, 1929 Book Value
On south side of West 182nd Street, near Jerome Avenue, Bronx, New York, at 5½ per cent, due 1932	3,000.00		3,000.00		3,000.00	
On northeast corner Gerard Avenue and East 164th Street, Bronx, New York, at 51/2 per cent, due 1932	1,000.00				1,000.00	
On Thayer Street and Sherman Avenue, New York, at 51% per cent, due 1932	13,000.00				13,000 00	
On Teasdale Place and Cauldwell Avenue, Bronx, New York, at 5½ per cent, due 1932	5,000.00				5,000.00	
-	\$57,500.00	57,500.00	57,500.00	\$500.00	\$57,000.00	57,000.00
		\$27,855,883.35				\$28,827,632.59

REPORT

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THE TREASURER

SECURITIES SUMMARY

At June 30, 1929	At June Book	At June 30, 1928 Book Value	Increase 1928-1929	Decrease 1928-1929	At June Book	At June 30, 1929 Book Value
Schedule I—Railroad Schedule II—Public Utility. Schedule III—State and Municipal. Schedule IV—Industrial. Schedule V—Foreign Government. Schedule VI—United States Government.	\$5.184.838.82 3,951,122.23 3,900.63 2,180,855.35 60,622.50 16,676.12		\$11,246.32 525.00 36,765.00 32,754.04	\$71,184.57 1,089.46 169,565,93	\$5,124,900.57 3,950,032.77 3,900.63 2,011,814.42 97,387.50 49,430.16	
Schedule I—Railroad Schedule II—Public Utility. Schedule III—Industrial Schedule IV—Bank and Trust Co.	2,288,470.40 435,180.03 1,151,176.01 88,782.26	00.010.000		167,166.22 18,326.00 295,589.80 88,682.26	2,121,304.18 416,854.03 855,586.21 100.00	\$11,237,466.05
MISCELLANEOUS. BONDS AND MORTGAGES. GUARANTEED CERTIFICATES. PARTICIPATION CERTIFICATES.		3,963,608.70 101,514.00 12,324,245.00 11,000.00 57,500.00	193,281.05 3,274,102.07	1,764,820.00		3,393,844.42 294,795.05 13,833,527.07 11,000.00 57,000.00
Total		\$27,855,883.35	\$3,548,673.48	\$2,576,924.24	\$28,827,632.59	\$28,827,632.59
Special Endowments—Principal. Special Endowments—Income. Student Loans Gifts.		\$26,328,374,45 769,586.51 7,411.68 745,845.64 4,665.07	\$818,558,79 107,538.14 57,388,48	\$111,000.00	111,000,000	\$27,146,933.24 877,124.65 64,800.16 634,845.64 103,928.90
Total		\$27,855,883.35	\$1,082,749.24	\$111,000.00	\$111,000.00\$28,827,632.59	\$28,827,632.59

REDEMPTION FUND

Balance in Fund at June 30, 1928	
Deduct: Securities Sold to Redeem Bonds Due June 1, 1929	\$1,250,000.00 . 750,000.00
Balance in Fund at June 30, 1929	. \$500,000.00
\$3,200 United States of America Fourth Liberty Loan 4½ per cent Bonds, due 1938	
BONDS AND MORTGAGES	
On 1045 Fifth Avenue, New York, at 5½ per cent., due 1929 80,000.00 On Southwest Corner Pinehurst Avenue and 176th Street,	
New York, at 6 per cent., due 1930	
1929	
On 412-422 East 90th Street, New York, at 6 per cent., due 1930 102,300.00	- \$499,500.00
Cash	500.00
	\$500,000.00

UNIVERSITY LAND BUILDINGS AND EQUIPMENT

UNIVERSITY LAND, BUILDINGS AND EQUIPMENT

	At June 30, 1928	80, 1928	Additions 1928–1929	Deductions 1928-1929	At June	At June 30, 1929
Land: 114th to 116th Streets, Amsterdam Avenue and Broadway Improvements to Grounds	\$2,022,440.06 55,464.15	62 004 24			\$2,022,440.06 55,464.15	62 027 004 24
116th to 120th Streets, Amsterdam Avenue and Broadway Improvements to Grounds	2,000.000.00	2 420 601 17			2,000,000.00 429,601.17	2 420 601 17
116th Street, north side, Morningside Drive to Amsterdam Avenue		563,193.40		:		563,193.40
Avenue Baker Field, Broadway, 218th Street and Harlem Ship Canal. Turorismants and additions to Bober Field.	736,656.65	503,656.95	503,656.95		736,656.65	503,656.95
Amprovements and additions to parci Fred	10.716,102	998,028.69			10.216,102	998,028.69
Avery Library Building: Construction	339,821.42				339,821.42	
EquipmentBaker Field Boat House.	1,829.68	341,651.10			1,829.68	341,651.10
Baker Field Boat House Equipment. Raker Field Boat House		1,500.00				1,500.00
Baker Field Grandstands. Boat House at Highland. N. V.		54,160.06	24,646.16	24,646.16		78,806,22
Casa Italiana: Equipment	315,526.06	0000			315,526.06	0,00
ust		315,586.33				315,586.33 3,166.44
Dental and Oral Surgery; School of Construction and Equipment Crocker Research Building:		597,183.71	597,183.71		\$3,416.71	593,767.00
X-Ray Equipment.	:	18,465.53				18,465.53

	1	REF	0	RΤ	O F	Т	Н	E	Т	R	REA	A S	U	R	E F	2	97
39 768 391	13,402.62	304,850.97	335,012.85		411,108.45	386,191.04		510,728.75		367,671.45		650,502.33		988,882.24		1.845.025.69	1,265,434.63
164,844.65	284,075.50	299,725.43	35,287.42	362,610.91	352,666.66	486 572 36	24,156.49		337,202.65		536,427.47		780,951.30		1,661,332.39	00,000,001	1,145,942.25 92,201.06 27,291.32
			:	.00	:				4.669.64				3,845.72		151.23		1,578.01
					77 077 4				4.669.64				20.216.81		2 313 02		
39 700 391	13,402.62	304,850.97	335,012.85		411,108.47	381,521.40		510,728.75		363,001.81		650,502.33		972,511.15		1.842.863.90	1,263,856.59
164,844.65 980.00	284,075.50	299,725.43	35,287.42	362,610.93 48,497.54	352,666.66	36 673 384	24,156.49		337,202.65		536,427.47		784,797.02		1,661,483.62	101,000,101	1,145,942.25 92,201.06 25,713.28
Construction and Equipment	Construction	Construction	Equipment	Construction Equipment	Construction	Equipment	Equipment		Construction		Construction		Construction		Construction	to due particular and an and an and an and an and an and an and an and an and an analysis and	Construction. Equipment. Commons Equipment
Earl Hall: Construction and Equipment	East Hall: Alterations and Equipment	Faculty House:		Fayerweather Hall:	Furnald Hall:	Transfer Holl.	нашпон нап:		Hartley IIall:		Havemeyer Hall:		Havemeyer Annex:		John Jay Hall:		Johnson Hall:

		At June 30, 1928	1928	Additions 1928–1929	Deductions 1928-1929	At June 30, 1929	30, 1929
Kent Hall:	ConstructionPost Office	\$588,636.91 1,164.50	6500 801 41			\$588,636.91	\$580 801 41
Library Building:	Construction Equipment	1,108,461.08 103,038.31 46,600.00	9307,001.41			1,108,461.08 103,038.31 46,600.00	1 258 000 20
Livingston Hall:	Construction Equipment	333,607.50 25,998.59	250,00903	\$4,669.64		333,607.50	1,530,037.37
Philosophy Building: Physics Building:	Construction	1,282,709.73	349,694.66	99.44		1,282,809.17	349,694.66
President's House:	ConstructionFurnishing	196,830.82	1,539,003.60			196,830.82	1,545,551.89
St. Paul's Chapel:	Construction Equipment	266,676.54 57,090.62	221,240.99			266,676.54 57,090.62	221,240.99
Schermerhorn Hall:	Construction Equipment	459,458.17 57,363.82	023,707.10	24,350.54 526.44		483,808.71	223,723,725
Schermerhorn Hall Extension:	Construction Equipment		310,021.39	315,743.09			315,743.09 2,795.35
School of Business:	Construction Equipment	1,000,820.29	1,071,355.15			1,000,820.29	1,071,355.15

School of Journalism:	Construction	534,863.38 28,637.83				534,863.38 28,637.83		
School of Mines Building:	Construction	305,506.29	503,501.21			305,506.29	563,501.21	I
			325,267.14				325,267.14	RΕ
University Hall:	Construction	988,431.53			:	988,431.53		P
	Equipment	20,821.07		50.00	:	20,871.07		, C
	Power House Equipment	239,836.10		67,495.46		307,331.56)]
	Power House Conduits	13,527.16				13,527.16		R
	Gymnasium Equipment	43,149.23			:	43,149.23		т
	Commons Equipment	14,438.38	24 200 001	1,186.92		15,625.30	1000	C
			1,520,203.47				1,388,935.85) :
No. 411 West 117th Street (Maison Francaise)	Francaise)		34,624.72				34,624.72	F
No. 413 West 117th Street (Chaplain's Residence)	in's Residence)	:	24,782.69	7.20			24,789.89	
No. 415 West 117th Street (Dean's Residence)	Residence)	:	24,782.69	7.20			24,789.89	т
No. 419 West 117th Street (Columbia House)	bia House)		31,333,33	:			31,333.33	Н
No. 421 West 117th Street			22,833.00				22,833.00	Е
No. 423 West 117th Street, (Deutsches Haus)	ches Haus)			37,712.65			37,712.65	
No. 437 West 117th Street			265,388.90				265,388.90	Т
Class of 1880 Gates		:	2,000.00	:			2,000.00	R
Class of 1881 Flagstaff		:	4,600.00				4,600.00	E
Class of 1883 Mines—Setting Bust of Professor Egleston	of Professor Egleston		390.00	390.00			390.00	A
Class of 1885 Sun-Dial			10,000.00	:	:		10,000.00	. 5
Class of 1886 Granite Exedra			5,000.00				5,000.00	; ī
Class of 1888 Gates		:	2,000.00	:	:		2,000.00	J.
Class of 1889 Mines "Hammerman"			5,000.00				5,000.00	R
Class of 1890 Arts and Mines—Statue of Letters and pylon	ue of Letters and pylon	:	8,598.72				8,598.72	E
Class of 1891 Gates		:	15,000.00	:			15,000.00	R
Class of 1897 Boat House			8,000.00		:		8,000.00	
Class of 1893 Chapel Bell			5,114.84				5,114.84	
Class of 1900 Statue of Science and pylon	pylon		13,148.95	3,148.95			13,148.95	
Class of 1906 Clock		:	1,159.16	1,159.16			1,159.16	ç
Fountain of the God Pan			12,013.50	_::::::::::::::::::::::::::::::::::::::	12,013.50		12,013.50	9

	At June 30, 1928	0, 1928	Additions 1928-1929	Deductions 1928-1929	At June 30, 1929	0, 1929
Granite Posts for Class of 1891 Gates		\$2,563.00				\$2,563.00
Hamilton statue		10,900.00				10,900.00
Lighting University Grounds	:	1,035.00				1,035.00
Portrait of President Butler		0,880.57				9,880.57
Seth Low Memorial Tablet		1,010.00			: : : : : : : : : : : : : : : : : : : :	1,010.00
Marcellus Hartley Research Tablet		417.00			:	417.00
John B. Pine Tablet		1,374.00				1,374.00
Munroe Smith—Tablet		1,840.00			:	1,840.00
Van Amringe Memorial		20,738.34				20,738.34
Removal and Re-erection of Fence		15,371.71			:	15,371.71
Manor House, Improvements and Furnishings					:	8,951.94
Hegeler Furnace		2,000.00				2,000.00
Model of Buildings and Grounds		19,972.70				19,972.70
Model of Coal Mine		250.00				250.00
Braden Mine Models		1,700.00				1,700.00
Repairs and Equipment of Old Buildings:						
East Hall		5,113.34				5,113.34
South Court Fountains		4,932.88			:	4,932.88
Students Army Training Corps Equipment		850.00				850.00
Botany and Agricultural GreenhousesOptical Instruments		7.100.00				16,486.50
Assessments:						
Boulevard Sewer	\$2,579.90	\$2,579.90			\$2,579.90	
Opening and acquiring title to Addition to Riverside Park,	8,168.98	8.168.98			8.168.98	
					1000000	

	R	ЕРО	R	Т	0	F	Т	Н	E		Т	R	E	A S	U	REF	2		101
NO 170 73	372,058.68	66,041,101	67,699.19											7,527,389.83	39,764.27	\$32,903,755.16		31,080,80	\$32,872,674.30
2,882.77 38,033.59 4,814.55 45.80		30,382.79		628,969.31 33.896.20	1,400.00	39.084.92	399,263.14	867,062.50	529,647.05	9,068.47	3,601,569.02	54,230.25	02.007.000	750,000.00		29,296.20	1,694.66	90.00	
	:			191.00				117,937.50							1.00	\$125,543.18			
									\$529,647.05	853.18	7,872.83	19,779.47	07:0071075	6,489,104,90		\$31,353,698.82 \$1,675,599.52			
48 470 73	372,058.68	6.051,101	67,699.19											6,489,104.90	39,765.27	\$31,353,698.82	23,174.58		\$31,330,524.24
2,882.77 38,033.59 4,814.55 45.80		30,382.79		34.087.20	1,400.00	39.084.92	399,263.14	985,000.00		8,215.29	3,593,696.19	34,450.78		750,000.00		\$23,124.58	50.00		
Opening 116th Street Opening 120th Street Opening Riverside Drive and Parkway On 116th Street for Inwood Park	Expenses during construction and removal to New Site—(Net)	Outside Street WOA. Vaults: East.	Medical School:	Buildings	Library	Roof LaboratorySchool of Dentistry	Sloane Hospital for Women.	New Site	New Residence Hall Site	Improvements to New Site	New Buildings	School of Dontal and Oral Surgers	Sloane Hospital and Vanderbilt Clinic Buildings and	Equipment	Camp Columbia, Morris, Conn	Less Reserve for Depreciation of Commons Equipment	Less Reserve for Hartley Hall	Less Reserve for John Jay Hall	

OTHER PROPERTY

	At June 30, 1928	Increase	Decrease and At June 30, Depreciation 1929	At June 30, 1929	
Amsterdam Avenue and 115th Street	\$106,420.07			\$106,420.07	
	1.00			1.00	
:	683,276.70		\$10,500.04	672,776.66	\sim
21 Claremont AvenueLand and Building	325,106.21	325,106.21	15,133.36	309,972.85	\circ
21 Claremont AvenueEquipment	3,622.58			3,622.58	
29-35 Claremont AvenueLand and Building	466,163.06		24,468.91	441,694.15	-
	8,757.65		:	8,757.65	44.
	437,888.65	437,888.65	5,840.51	432,048.14	
610 Fifth AvenueBuilding and Lease	1.00	1.00	1.00		•
:	64,086.19		64,086,19		
616 Fifth AvenueBuilding and Lease	111,500.00		111,500.00		λ.
:	92,067.95		92,067.95		٠,
620 Fifth AvenueBuilding and Lease	74,034.53		74,034.53		•
622 Fifth AvenueBuilding	70,295.00	70,295.00	70,295.00		7.4
626 Fifth Avenue and 1 West 50th StreetBuilding and Lease	385,418.04		385,418.04		
	56,000.00		56,000.00		•
	62,500.00	62,500.00	62,500.00		-
632 Fifth AvenueBuilding and Lease	83,921.28		83,921.28		7/
50 Murray StreetBuilding and Lease	22,043.15		3,348.75	18,694.40	0
68 Murray StreetBuilding	30,231.04		890.02	29,341.02	
70 Murray Street Building	10,094.09			10,094.09	•
72 Murray StreetBuilding	5,762.76		240.12	5,522.64	-
	599,499.85		25,896.50	573,603.35	
18 East 16th StreetLand	167,109.75		: : : : : : : : : : : : : : : : : : : :	167,109.75	
41 West 47th StreetLand and Building	61,750.72			61,750.72	
9 West 48th StreetBuilding and Lease	14,376.82	14,376.82	14,376.82		
:	35,124.84		35,124.84		
17 West 48th StreetBuilding and Lease	38,547.98		38,547.98		
19 West 48th StreetBuilding	12,141.92		12,141.92		

30,466.73 9,953.65 7,547.59 14,126.36	10,097.04 11,019.41 30,203.00 55,488.50	15,000.00 40,203.20 31,837.95 38,501.39	22,000.00 15,000.00 13,131.46 107,949.90	50,251.80 58,774.37 7,493.90 36,115.40 10,600.00 1,000.00	32,290,75 25,000,00 36,046,82 25,280,08 15,392,70 14,457,85 10,667,30 10,667,30
30,466,73 9,953,65 7,547,59 14,126,36	16,097.04 11,019.41 30,203.00 55,488.50	15,000.00 40,203.20 31,837.95 38,501.39	22,000.00 15,000.00 13,131.46 107,949.90	58,724,37 7,493,90 36,115,40 10,600,00 24,140,52	32.290.75 25.000.00 25.000.08 25.280.08 15.392.70 14.457.88 10,667.30 1.00
	45 West 48th Street. Building and Lease 5 West 49th Street. Building and Lease 7-9 West 49th Street. Building and Lease	13 West 49th Street. 16 West 49th Street. 17 West 49th Street. 18 wilding and Lease 12 West 49th Street. 18 wilding and Lease 22 West 49th Street.		10. West 50th Street Building 11 West 50th Street Building 21 West 50th Street Building 22 West 50th Street Building and Lease 23 West 50th Street Building and Lease 24 West 50th Street Equipment 25 West 50th Street Building and Lease 26 West 50th Street Building and Lease	30 West 50th Street Building and Lease 36 West 50th Street Building and Lease 59 West 50th Street Building 60 West 50th Street Building 61 West 50th Street Building and Lease 62 West 50th Street Building and Lease 7 West 50th Street Building and Lease 8 West 51st Street Building 6 West 51st Street Building

	At June 30,	Increase	Decrease and At June 30, Depreciation 1929	At June 30, 1929
o War flat Street	\$53,755.24		\$53,755.24	
	15,505.55		15,505.55	
44 West Dist. Street.	10,000.00		10,000.00	
	23,086.78		23,086.78	
:	14,627.20		14,627.20	
	: : : : : : : : : : : : : : : : : : : :	\$199,463.25		\$195,023.70
	185,759.22		3,207.38	182,551.84
:	398,213.15		14,970.20	383,242.95
Age Wort 117th Street	26,203.37	7.20	340.00	25,870.57
	22,645.95	7.20	262.12	22,391.03
And MY at 117th Careet	35,000.00		35,000.00	
421 West 117th Street	23,783.77	7.34	309.51	23,481.60
433 West 117th Street	23,078.20	7.34	280.11	22,805.43
	21,974.22	7.34		21,691.88
1774 Street Mouningide Drive and 118th Street	801,647.28	3,698.00	14,307.26	791,038.02
	2,925.10		525.10	2,400.00
	\$6,514,481.10	l	\$203,197.67 \$2,205,772.68 \$4,511,906.09	\$4,511,906.09
Dool Details (Amos F Fro Endowment) Land and Buildings 5,076,693.20	5,076,693.20		46,283.75	46,283.75 5,030,409.45
	383,736.00		1,270.00	382,466.00
	1.00	74,999.00		75,000.00
:	:	4,500.00		4,500.00
	\$11,974,911.30	1	\$282,696.67 \$2,253,326.43 10,004,281.54	10,004,281.54

SPECIAL ENDOWMENTS

· SPECIAL ENDOWMENTS

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
(A) For General Purposes			
BURGESS (JOHN W.) FUND: Gift of Anonymous Donors to the general endowment of the University. Established 1910	\$100,000.00		\$100,000.00
CARPENTIER (H. W.) ENDOWMENT FUND: Legacy of the late Horace W. Carpentier, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1918	1,317,334.84		1,317,334.84
CIVIL ENGINEERING TESTING LABORATORIES FUND: Created by act of the Trustees on January 5, 1925, by the transfer of the sum of \$10,000 from the unexpended balance on June 30, 1924, of receipts from the Civil Engineering Testing Laboratories, this sum to be set up as a Civil Engineering Testing Laboratories Fund, the income or principal of which shall be used as the Trustees may from time to time determine for the support and development of the work of these laboratories. Established 1925	16,943.19	\$4,111.56	21,054.75
CLASS OF 1902: Gift of the Class of 1902 College, the income to be used for the general purposes of the University. Established 1928	17,000.00		17,000.00
COLUMBIA UNIVERSITY PERMANENT ALUMNI FUND: Inaugurated by a gift of \$10,000.00 from the Class of 1895 Arts and Mines and subsequently increased by gifts from the Alumni Federation of Columbia University, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1919	85,000.00	23,300.00	108,300.00

KENNEDY (JOHN STEWART) ENDOWMENT FUND:				
Bequest of the late John Stewart Kennedy, a Trustec of Columbia University 1903 to 1909. Estab- lished 1910.	2,794,737.60	1,406.25	2,796,143.85	
PELL (MARY B.) LEGACY: Bequest of the late Mary B. Pell, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1914	279,785.98	25,820.66	305,606.64	RE
VAN CORTLANDT (ROBERT B.) FUND: Bequest of the late Robert B. Van Cortlandt, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1918	802,217.24	12,230.25	814,447.49	PORT
(B) For Designated Purposes	\$5,413,018.85	\$66.868.72	\$5,479,887.57	0
ADAMS (ERNEST KEMPTON) FUND FOR PHYSICAL RESEARCH: Gift of Edward D. Adams, in memory of his son, the late Ernest Kempton Adams, such part of the income as shall be designated by the Trustees to be applied to the stipend of the Research Fellow pursuing researches in the Physical Sciences or in their practical applications; the income received in excess of such stipend to be used in the publication and distribution of the results of the investigation carried on by such Fellows. Established 1904.	50,000.00		50,000.00	г тне т
ALDRICH (JAMES HERMAN) SCHOLARSHIP FUND: Gift of James H. Aldrich, of the Class of 1863, to establish this fund in commemoration of the fiftieth anniversary of his graduation. Established 1913	5,000.00		5,000.00	REAS
ALUMNI WAR BONUS FUND: Proceeds of Adjusted Compensation Certificates donated by Columbia University War Veterans, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1929.		439.00	439.00	URER
ANONYMOUS FUND FOR CHURCH AND CHORAL MUSIC: Gift of an anonymous donor to establish this fund, the income to be used to maintain a Professorship in Church and Choral Music. Established 1913	100,859.36		100,859.36	107

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
ANONYMOUS FUND FOR THE DEPARTMENT OF MINING AND METALLURGY: Gift of an Anonymous Donor to establish a fund for the use and benefit of the Department of Metal- lurgy in the School of Mines, the income of the fund to be paid to the wife of the donor during her lifetime and thereafter to the donor, should he survive her. Established 1925	\$100,000.00		\$100,000.00
ANONYMOUS FUND FOR PHYSICS AND PHYSICAL CHEMISTRY: Gift of an anonymous donor, the income to be paid to the donor during his lifetime and thereafter to Columbia University in accordance with the terms of agreement. Established 1928	368,751.50	\$111,765.00	480,516.50
ART PROFESSORSHIP FUND: Bequest of Hugo Reisinger to found a professorship of the History of Arts. Established 1916	100,000.00		100,000.00
AVERY ARCHITECTURAL FUND: Gift of Samuel P. Avery and Mary Ogden Avery in memory of their deceased son, Henry Ogden Avery, the income of the fund to be applied to the purchase of books relating to architecture, decorations and allied arts. Established 1890, and augmented in 1910 by \$20,000	50,000.00		50,000.00
BAIER (VICTOR) FELLOWSHIP FUND: Bequest of the late Victor Baier to establish a fellowship in church music to be governed by such rules and regulations as may be determined by the Trustees. Established 1922	20,000.00		20,000.00
BANGS (FRANCIS SEDGWICK) FUND: Gift of Mrs. Francis Sedgwick Bangs to establish a scholarship in the School of Law in memory of her husband, the late Francis Sedgwick Bangs of the Class of 1878 and a Trustee of the University from 1900 to 1920; the scholarship to be awarded to a qualified student who is a member of either the Anglo-Saxon, the Germanic, the Scandinavian, or the Latin race and who shall be of Christian parentage; and preferably one who has been a student in Columbia College. Established 1926	6,000.00		6,000.00
BARKER (CLARENCE) MUSICAL SCHOLARSHIP FUND: Bequest of the late Mrs. Virginia Purdy Bacon, to establish a graduate scholarship in the Department of Music. Established 1921	25,000.00	25,000.00	25,000.00

BARNARD FELLOWSHIP FUND: Legacy from the late President Barnard to establish the 'Barnard Fellowship for encouraging Scientific Research.' Established 1889	10,000.00		10,000.00	
BARNARD LIBRARY FUND: The residuary estate of the late President Barnard was left to the Trustees of Columbia College to constitute a fund under the name of the 'Barnard Fund for the Increase of the Library,' the income of which is to be devoted to the purchase of books, especially those relating to plusical and astronomical science; but out of the income of this fund so much as may be necessary is to be applied in procuring a gold medal of the buildion value of not less than \$200, to be styled the 'Barnard Medal for Meritorious Service to Science,' to be awarded every five years on the judgment of the National Academy of Science of the United States. The medal will be next awarded in June, 1930. Established 1889.	59,600.00		29,600.00	REPORT
BARNARD (MARGARET) FUND: The residuary estate of the late Margaret Barnard, widow of the late President Barnard, was left to the Trustees of Columbia College, 'to augment the sum left by my late husband.' Established 1892.	16,250.00		16,250.00	ог тн
BECK FUNDS: The late Charles Bathgate Beck bequeathed the sum of \$10,000 to be applied as follows: \$2,000 to found one free scholarship, the income to be applied 'to the free yearly tuition and education in said College of one student forever, under such terms and conditions as the rules of said College and said Trustees shall prescribe,' the income of the remaining \$8,000 to be used for an annual prize 'to the student in the Law School who shall pass the best examination in Real Estate Law.' Established 1899. Beck Scholarship Fund. \$2,000.00	10,000.00		10,000.00	E TREASUI
BEEKMAN (GERARD) FUND: Bequest of the late Gerard Beekman, formerly a Trustee of Columbia University, the income to be used in connection with the work of the Chaplain. Established 1920	10,000.00	:	10,000.00	RER
BEER (JULIUS) LECTURE FUND: Bequest of the late Julius Beer, the income of which is to be applied to providing lectures at intervals not exceeding three years, by lecturers nominated by the Faculty of Political Science and confirmed by the Trustees. Established 1903	10,000,00	10,000,00	10,000.00	10 9

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
BENNETT PRIZE FUND: Gift of James Gordon Bennett, the income, or a medal of equal value, to be given for 'an essay in English prose upon some subject of contemporaneous interest in the domestic or foreign policy of the United States.' Established 1893	\$1,000.00		\$1,000.00
BERGH (HENRY) FUND: Anonymous Gift, the income to be used for the promotion of humane education. Established 1907.	100,000.00		100,000.00
BLUMENTHAL ENDOWMENT FUND: Gift of George Blumenthal for the endowment of a Chair of Politics. Established 1906	111,069.67	:	111,069.67
BLUMENTHAL (GEORGE, Jr.) SCHOLARSHIP FUND: Gift of Mr. and Mrs. George Blumenthal, the income to be awarded to students of Medicine to cover the cost of tuition, or for other purposes. Established 1909	19,667.50	\$27,877.20	47,544.70
BONDY (EMIL C.) FUND: Bequest of the late Emil C. Bondy, the income of which is to be applied, first, toward investigation into the cause, prevention and cure of cancer, and, second, toward general research in medicine and surgery and their allied subjects. Established 1916	100,000.00		100,000,00
BORING FELLOWSHIP FUND: Gift of Edward C. Moore, Jr., to establish a Fellowship in the School of Architecture. Established 1922.	6,200.00		6,200.00
BRAINARD (EDWARD SUTLIFF) MEMORIAL PRIZE FUND: Gift of Miss Phoebe T. Sutliff in memory of her nephew Edward Sutliff Brainard of the Class of 1921, the income to be awarded annually to that student in the graduating class of Columbia College who is adjudged by his classmates, according to such rules as the Faculty may prescribe, as most worthy of distinction on the ground of his qualities of mind and character. Established 1920	1,200.00		1,200.00

22,000.00	32,250.00 32,250.00 B	1,247.00 T,247.00 H	THE 00'000'S	T R E A S 00'000's	U R E R 00'000'E 00'000'E	5,500.00 S,500.00 S,500.00
BRIDGHAM (SAMUEL WILLARD) FUND: Gift of Mrs. Fanny Bridgham to establish a fund, in memory of the late Samuel Willard Bridgham, of the Class of 1867, School of Mincs, the income to be applied to the support of a Fellowship to be awarded annually by the Faculty of Applied Science. Established 1915	BULL (WILLIAM T.) MEMORIAL FUND: From the William T. Bull Memorial Fund Committee in honor of the late William T. Bull, M. D., the income to be applied to meet the cost of conducting original research under the direction of the Department of Surgery. Established 1911.	BUNNER PRIZE FUND: Gift of friends of the late Henry Cuyler Bunner, the income to be used to provide every year the 'H. C. Bunner Medal,' to be given to the student who shall present the best essay on an assigned subject in American literature. Established 1896	BURGESS (ANNIE P.) SCHOLARSHIP FUND: Bequest of the late Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913.	BURGESS (DANIEL M.) SCHOLARSHIP FUND: Bequest of the late Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913.	BUTLER (NICHOLAS MURRAY) MEDAL FUND: Gift of Archer M. Huntington to establish a fund, the income to be used in providing a gold medal every five years for the most distinguished contribution made anywhere in the world to pluilosophy, or to educational theory, practice or administration. Established 1914	BUTLER (RICHARD) SCHOLARSHIP FUND: Gift of Mrs. Richard Butler in memory of her deceased husband, Richard Butler. Open to students born in the State of Ohio. Established 1903

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
CAMPBELL SCHOLARSHIP FUND: Gift of \$3,000 cach from Miss Maria L. Campbell and Miss Catherine B. Campbell to establish two scholarships in Columbia College in memory of Robert B. Campbell, of the Class of 1844, and Henry P. Campbell, of the Class of 1847. Established 1900	\$6,000.00		\$6,000.00
CARPENTER (CLARENCE) FUND: Gift of Mrs. Josephine L. Carpenter in memory of her husband, Clarence Carpenter, the income to be used to promote Cancer Research. Established 1928		\$20,000.00	20,000.00
CARPENTIER (EDWARD R.) FUND: Gift of Mrs. Maria II. Williamson for the endowment of a 'Professorship, or an endowed lectureship, on the origins and growth of civilization among men.' Established 1906	250,000.00		250,000.00
CARPENTIER (JAMES S.) FUND: Gift of General H. W. Carpentier to establish a fund in memory of his brother, James S. Carpentier, for the benefit of the Law School. Established 1903	300,000.00		300,000.00
CARPENTIER (R. S.) FUND: Gift of General H. W. Carpentier towards a professorship in the Medical School, in memory of Reuben S. Carpentier. Established 1904.	100,000.00		100,000.00
CARTER (HERBERT S.) MEMORIAL FUND: Gift of Dr. Nathaniel R. Norton, the income to be used for lectures in the Medical School. Established 1929		500.00	500.00
CARTWRIGHT LECTURESHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed to accrue and to be added to the principal until further action by the Trustees; the annual income then to be used for the support of lectureships at the Medical School in accordance with the wishes of the late Benjamin Cartwright. Original gift \$8,800.50. Established 1928	9,060.50	533.02	9,593,52

CANADA MANDAMAN AND TAKE TAKE TO TO				
CASA ITALIANA ENDOWMENT FOND: Gift of various donors, the income to be applied toward the maintenance of the Casa Italiana. Established 1926	8,390.37		8,390,37	
CASTNER (HAMILTON YOUNG) FUND: Bequest of the late Cora M. Perkins, the income to be invested by the Trustees of Columbia University in such manner as shall in their judgment most effectively encourage chemical investigation and research. Established 1923	282,719.38	13.00	282,732.38	REP
CENTER FUND: Gift of May E. Ludlow, in memory of her son, the late Robert Center, the income to be applied either to the salary of a Professor of Music, or of other Instructors of Music, or to Fellowships, Scholarships in Music, or to be used in any one or more of these or such other ways as shall, in the judgment of the Trustees, tend most effectually to elevate the standard of musical instruction in the United States, and to afford the most favorable opportunity for acquiring instruction of the bithese ways.	00 000			окт ог
CHAMBERLAIN (JOSEPH P.) ENDOWMENT FUND: Gift of Joseph P. Chamberlain for the endowment of a chair of legislation. Established 1917	150,000.00		150,000.00	тне
CHANDLER (CHARLES FREDERICK) FUND: From the Alumni of Columbia University to establish this fund in honor of Professor Charles Frederick Chandler, the income to be applied to the delivery and publication of at least one public lecture each year on some phase of the science of Chemistry, etc. Established 1910	7,500.00		7,500.00	TREA
CHANLER PRIZE FUND: Bequest of J. Winthrop Chanler, of the Class of 1847, to found an annual prize for 'the best original manuscript essay in English prose on the History of Civil Government of America, or some other historical subject.' Established 1877.	1,100.00		1,100.00	SURER
CHAPEL FURNISHING FUND: Created by act of the Trustees on Feb. 1, 1926, by the transfer of the balance of the St. Paul's Chapel Windows Gift Account. This sum to constitute a special fund, either the principal or income of which may be used for furniture and equipment of St. Paul's Chapel. Established 1926	380.06	380.06	380.06	. 113

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
CHAPEL MUSIC FUND: Gift of Gerard Beekman of the Class of 1864 to establish this fund, the income to be applied to the purchase of suitable music for use in the services in St. Paul's Chapel. Established 1913	\$1,050.00		\$1,050.00
CLARK SCHOLARSHIP FUND: Bequest of the late Alonzo Clark, M. D., formerly President of the College of Physicians and Surgeons, for the purpose of promoting the discovery of new facts in medical science. First prize bestowed October 1, 1894	15,250.00	15,250.00	15,250.00
CLASS OF 1848 SCHOLARSHIP FUND: Gift of an anonymous friend, for the endowment of two Scholarships in Columbia College. Established 1902.	10,000.00		10,000.00
CLASS OF 1869 FUND: Representing the amount held by the Treasurer of the Class of 1869 at the time of his death. The income or principal to be used as the surviving members of the class may designate. Established 1924.	10.66		99.01
CLASS OF 1881 ARTS AND MINES FUND: Gift of the Class of 1881 Arts and Mines in commemoration of the fortieth anniversary of their graduation, for the maintenance of the class of 1881 flagpole and for the purchase of Columbia flags. Established 1921.	2,000.00		2,000.00
CLASS OF 1885 SCHOOL OF MINES FUND: Gift of the Class of 1885 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the maintenance of a Scholarship in the Schools of Mines, Engineering and Chemistry. Established 1910.	13,125.00		13,125.00
CLASS OF 1888 ARTS AND MINES FUND: For the maintenance of the Class of 1888 Gates. Established 1917	400.00	400.00	400.00

CLASS OF 1889 MEDAL FUND: Gift of the Class of 1889 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the cost of a medal to be awarded triennially to a graduate		-	
of the School of Mines, or of any of the schools of applied science or architecture, who shall have distinguished himself by eminent achievement in any sphere of human effort. Established 1915	200.00		500.00
CLASS OF 1892 ARTS AND MINES FUND: Gift of the Class of 1892 Arts and Mines for the endowment of rooms 633 Hartley and 431 Furnald, the occupancy thereof to be awarded as provided in the deed of gift. Established 1917	00.009,5		6,600.00
CLASS OF 1896 ARTS AND MINES SCHOLARSHIP FUND: Gift of the Class of 1896 Arts and Mines, in commemoration of the twenty-fifth anniversary of their graduation. Established 1921.	12,000.00	:	12,000.00
CLASS OF 1901 DECENNIAL FUND: Gift of the Class of 1901 College and Applied Science, the income to be applied toward the expenses of maintaining the work of the Committee on Employment of Students. Established 1911	1,400.00		1,400.00
CLASS OF 1904 SCHOLARSHIP FUND: Gift of Class of 1904 College and Science, the income to be used for scholarships in accordance with terms of gift. Established 1929		13	15,000.00
CLASS OF 1905 FUND: Gift of the Class of 1905 College and Science, the income to be disposed of yearly by direction of the Class, the accumulated interest being added to the principal if the Class makes no direction. In 1930 the entire fund with accumulations and additions shall be applied to some University, athletic or alumni, activity as directed by the Class and if the Class make no direction, the entire fund with accumulations and additions shall become the property of the University as a sife from			
the Class. Established 1915.	1,225.00	585.43	1,810.43
CLASS OF 1909 FLAGPOLE FUND: Created by act of the Trustees November 7, 1927, the income to be used for the care and maintenance of the flagpole on Baker Field	917.57	45.87	963.44
CLASS OF 1912 PHYSICIANS AND SURGEONS FUND: Gift of the Class of 1912 of the College of Physicians and Surgeons, the income to be used under the direction of the Dean of the School of Medicine. Established 1927	2,472.77	500.00	77.77

At June 30, 1929	\$1,125.00	565,032.97	1,325.00	4,000.00	1,000.00
Additions 1928-1929		\$660.44	1,125.00		1,000.00
At June 30, 1928	\$1,125.00	564,372.53	200 00	4,000.00	1,000.00
	COCK (THOMAS F., M. D.) PRIZE FUND: Request of the late Augustus C. Chapin, the income to be used to provide an annual prize to be known as the Thomas F. Cock, M. D., Prize for the best thesis on puerperal fever. Established 1915.	COLLINS (PERRY MedONOUGH) SCHOLARSHIP FUND; Bequest of the late Kate Collins Brown, the annual income to be divided into amounts of three hundred dollars (\$300) to be paid annually under such rules and regulations as the Board of Trustees of the College may from time to time establish, to each of those undergraduates in the academic and scientific courses of the College whose pecuniary condition and resources are, in the judgment of the Board of Trustees, insufficient to defray the expenses of his college education; and if the College is unable in any year to use the entire income of the said Fund for the purposes aforesaid, after making every proper effort so to do, the balance of the income from the Fund in that year, not needed for the aforesaid purposes, shall be applied to the general purposes of the academic and scientific departments of the College. Established 1918	COLUMBIA ALUMNI IN MEMORIAM FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928.	COLUMBIA ALUMNI IN PERPETUITY FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928.	COLUMBIA HUDSON-FULTON PRIZE FUND: Gift of the representatives of the various Committees having charge of the reception given on the University grounds in October, 1909, under the auspices of the Hudson-Fulton Celebration Commission, the income to be used for an annual prize or prizes, to be known as the Columbia Hudson-Fulton Prize or Prizes, for an athletic event. Established 1909.

COLUMBIA UNIVERSITY FOOTBALL ASSOCIATION FUND: From the Trustees of the trust created by the Columbia University Football Association, the income to be applied towards the support of athletic teams or crews representing Columbia University in intercollegiate sports. Established 1911	10,037.72		10,037.72	R
CONVERS (E. B.) PRIZE FUND: Gift of Miss Alice Convers and Miss Clara B. Convers to endow, in memory of their brother, Ebenezer Buckingham Convers, of the Class of 1866, a prize in the Columbia Law School. Established 1906	1,100.00		1,100.00	ЕРО
THEAL FUND: Gift of Mrs. James R. Swords and Mrs. Samuel Lawrence as a memorial to their brother, Alexander I. Cotheal, the income to be used for the purchase of books in the Oriental Languages, or relating to Oriental countries. Established 1896	17,025.00	17,025.00	17,025.00	RT OF
CROCKER (GEORGE) SPECIAL RESEARCH FUND: Bequest of the late George Crocker, the income to be used in Cancer Research. Established 1911	1,414,219.13	500.00	1,414,719.13	тн
CROSBY (WILLIAM O.) COLLECTION OF LANTERN SLIDES FUND: Gift of \$1,800 from friends of Professor William O. Crosby, of Boston, to establish and maintain the collection of geological lantern slides in the Department of Geology known by above title. One hundred dollars was made innuediately available and \$1,700 is to constitute a permanent fund, the income only to be used for above purposes. Established 1913	1,700.00		1,700.00	E TRE
CROSS (A. K.) VISION TRAINING FUND: Gift of various donors, the income to be used in special work in Vision Training. Established 1928.		830.15	830.15	A S U
CURRIER (NATHANIEL) FUND: Bequest of Lura Currier, to establish the Nathaniel Currier Fund, the income to be used for the purchase of books for the Library. Established 1908	50,000.00		50,000.00	RER
CURTIS (CARLTON C.) FUND: Gift of Carlton C. Curtis for the endowment of a branch of creative investigation under the terms and conditions as set forth in the deed of gift. Established 1921	26,337.26	43.97	26,381.23	117

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
CURTIS FELLOWSHIP FUND: Gift of the George William Curtis Memorial Committee to establish a fellowship in the School of Political Science in Columbia University, to bear the name and to perpetuate the memory of the late George William Curtis, the holder of the fellowship to devote himself to the study of the science of government, with a special view to its application to the then existing condition of the United States, or the State or City of New York, and to publish a monograph on some subject relating to the then existing condition of the United States, etc. Established 1899	\$10,000.00		\$10,000.00
CURTIS (GEORGE WILLIAM) MEDALS FUND: Gift from an associate of George William Curtis in the Civil Service Reform work. Established 1902	1,300.00		1,300.00
CUTTING (W. BAYARD) FUND: Gift of Mrs. W. Bayard Cutting and her children to establish this fund in memory of the late W. Bayard Cutting, of the Class of 1869, the income to provide traveling fellowships. Established	160,000.00	:	160,000.00
CUTTING (W. BAYARD, JR.) FELLOWSHIP FUND: Gift of W. Bayard Cutting, to establish the 'W. Bayard Cutting, Jr. Fellowship Fund.' The income of the fund (to be not less than \$600) is payable to the Graf Erwein von Wurmbrand and the Grafin Eva von Wurmbrand during their lifetime; thereafter, the income shall be used to provide a fellowship in International Law, to be awarded annually at the pleasure of the Trustees, to that student, who, in their judgment, shall have attained a standard of excellence to justify the award. Established 1912.	15,939.20	\$196.96	16,136.16
DA COSTA PROFESSORSHIP FUND: The late Charles M. DaCosta, a member of the Class of 1855, bequeathed to the Trustees of Columbia College \$100,000. Of this sum, the Trustees, on October 6, 1891, for the endowment of a chair in the Department of Biology, set apart \$80,000, which has been increased by the profits of certain investments to.	86,600.00	86,600.00	86,600.00

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1,070.00	250,000.00	128,622.77	5,183,147.02	1,000.00	17,200.00	6,500.00
		6,759.87				0,500,00
1,070.00	250,000.00	121,862.90	5,183,147.02	1,000.00	17,200.00	6,500.00
DARLING (EDWARD A.) PRIZE FUND: Bequest of the late Edward A. Darling, formerly Superintendent of Buildings and Grounds, the income to be awarded as a prize each year at Commencement to that student of the senior class in Engineering whose work during his course of study is voted by his classmates to have been the most honest and thorough. Established 1903.	DEAN LUNG PROFESSORSHIP OF CHINESE FUND: Gift of an anonymous friend to found a department of Chinese Languages, Literatures, Religion and Law and especially for the establishment of a Professorship to be known as the Dean Lang Pro- fessorship of Chinese. Established 1901	DELAFIELD (FRANCIS) ALUMNI PROFESSORSHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed to accrue and to be added to the principal until such time as the principal shall amount to \$200, 000, the income, then to be used for the salary of a professorship in the Department of Pathology. Original gift \$119,022.20. Established 1928.	DE LAMAR (JOSEPH R.) FUND: Bequest of the late Joseph R. De Lamar, the income to be expended in such manner as the Trustees may from time to time direct in accordance with the terms of the bequest. Established 1919	DEUTSCHER VEREIN PRIZE FUND: Gift of the Deutscher Verein in Columbia University to establish an annual prize in German. Established 1917.	DEUTSCHES HAUS ENDOWMENT FUND: Gift of Adolph Busch received in 1912 and later transferred to the Germanistic Fund: re-established in 1928, the income to be expended in equipping and maintaining the Deutsches Haus	DEVENDORF (DAVID M.) SCHOLARSHIP FUND: Gift of Mrs. David M. Devendorf, to establish the 'David M. Devendorf Scholarship Fund' as a memorial to her deceased husband, David M. Devendorf, the income to provide a scholarship in the College of Physicians and Surgeons. Established 1911.

At June 30,	\$15,301.75	10,000.00	10,750.00	18,000 00	41.812.08
Additions 1928-1929					
At June 30, 1928	\$15,301.75	10,000.00	10,750.00	18,000.00	41 812 08
	DEWITT (GEORGE G.) SCHOLARSHIP FUND: Gift of Mrs. George G. Dewitt of New York to establish this fund, the net annual income to be awarded as a scholarship by the Faculty of Law to any graduate of Columbia College, of Christian parentage and of good mental and moral standing in his class, who may need such assistance to enable him to pursue the three-years course at the Law School and who, in the judgment of the Faculty of Law, shall be worthy of such privilege; provided that the holder of this scholarship shall reside in one of the Residence Halls of the University during his period of study. Established 1917.	DOUGHTY (FRANCIS, M. D.) SCHOLARSHIP FUND: Bequest of Phebe Caroline Swords to establish the 'Francis E. Doughty, M. D., Scholarship Fund' in the College of Physicians and Surgeons, open to members of any class. Established 1912	DRISLER CLASSICAL FUND: Gift of Seth Low, formerly President of the University, for the endowment of the 'Henry Drisler Classical Fund' for the purchase of books, maps, charts, busts and such other equipment as will tend to make instruction in the classics more interesting and effective. Established 1894	DU BOIS (DR. ABRAM) MEMORIAL FUND: Gift of William A. Du Bois, Matthew B. Du Bois and Katharine Du Bois, in memory of their father, Dr. Abram Du Bois, the income to be applied to the maintenance of a fellowship to be known as the Doctor Abram Du Bois Fellowship, to be open to a graduate of the College of Physicians and Surgeons devoting himself to the subject of diseases of the eye. Established 1910	DUNNING (WILLIAM A.) FUND: Bequest of the late William A. Dunning, the income to be paid to Mathilde M. Dunning during her lifetime, and thereafter to be applied to the promotion of instruction and research in the Depart-

DYCKMAN FUND: Gift of Isaac Michael Dyckman in memory of his uncles, Dr. Jacob Dyckman and Dr. James Dyckman, both of the College of Physicians and Surgeons, to establish the 'Dyckman Fund for the Encouragement of Biological Research,' the interest derived therefrom to be devoted annually to such object, consistent with the purposes of the gift, as shall be recommended by the Department of Zoology and approved by the President. Established 1899	10,500.00		10,500.00	RI
EARLE PRIZE FUND: Gift of the Earle Memorial Committee to establish the Earle Prize in Classics. Established 1907	1,325.00	:	1,325.00	ЕРО
EATON PROFESSORSHIP FUND: Bequest of the late Dorman B. Eaton to endow and maintain a Professorship of Municipal Science and Administration in the College. Established 1903	100,000.00		100,000.00	RT O
EDSON (HERMAN ALDRICH) SCHOLARSHIP FUND: Bequest of the late Mary Gertrude Edson Aldrich to establish this Fund. Established 1925	5,000.00		5,000.00	F T
EIMER (AUGUST O.) MEDAL FUND: Gift of the classmates and friends of August O. Eimer of the class of 1906, the income to provide medals for proficiency in swimming under the direction of The Columbia University Athletic Association. Established 1927.	1,000.00		1,000.00	HE TR
EINSTEIN FUND: Gift of Dr. and Mrs. Charles Waldstein, as a memorial to Mrs. Waldstein's parents, Mr. and Mrs. D. L. Einstein, the income of which is to be awarded annually to that graduate student doing the best and most original work in the field of American Diplomacy. Established 1911	5,000.00		5,000.00	E A S U
ELLIS (GEORGE ADAMS) SCHOLARSHIP FUND: Gift of George Adams Ellis, the income to provide an annual scholarship in the Law School. Established 1927	6,391.00	:	6,391.00	RER
ELSBERG (ALBERT MARION) PRIZE FUND: Gift of Mrs. Albert Elsberg to establish this fund as a memorial to her son, Albert Marion Elsberg, of the Class of 1905, the income to provide the 'Albert Marion Elsberg Prize in Modern History.' Established 1912.	2,100.00	2,100.00	2,100.00	121

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
EMMONS (SAMUEL FRANKLIN) MEMORIAL FUND: Amount collected by the Committee of the Emmons Memorial Fund for a fellowship in Scientific Research. Established 1913	\$16,585.35		\$16,585,35
ENO (AMOS F.) ENDOWMENT FUND: Bequest of the late Amos F. Eno, the principal and income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1923	7,536,942.55	\$6,654.90	7,530,287.65
EVANS (HENRY) FELLOWSHIP FUND: Gift of Mrs. Henry Evans in memory of her husband, the late Henry Evans of the Class of 1881, the income to be awarded annually as a fellowship in accordance with the terms and conditions of the gift. Established 1928	30,000.00		30,000,00
EVANS (HENRY) SCHOLARSHIP FUND; Gift of Mrs. Henry Evans in memory of her husband, the late Henry Evans of the Class of 1881. the income to be paid under such rules and regulations as the Trustees may from time to time establish, to an undergraduate in Columbia College entering upon his Freshman year, whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the cost of his college education. Established 1926.	20,000.00		20,000.00
EWELL (ELLA MARIE) MEDAL FUND: Bequest of Glover C. Beckwith-Ewell in memory of his wife, Ella Maric Ewell, the income to provide an annual medal in the School of Dental and Oral Surgery. Established 1926	1,000.00		1,000.00
FACULTY HOUSE MAINTENANCE FUND: Created by act of the Trustees on October 5, 1925 by the transfer of the balance of the Schermerhorn (F. Augustus) Bequest, this sum to constitute a special fund, the income to be used for the physical maintenance and upkeep of the Faculty House. Established 1925	14,876.59		14,876.59

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10,000.00	336,472.24	560.39	16,500.00	20,000.00	1,250.00	10,000.00	30,387.06
	16,022.48	4.50					6,138.01
10,000.00	320,449.76	555.89	16,500.00	20,000.00	1,250.00	10,000.00	24,249.05
FERGUSON (DAVID W. AND ELLEN A.) FELLOWSHIP FUND: Gift of William C. Ferguson of the Class of 1887, School of Mines, to establish a fellowship in the Department of Chemistry, the holder of the fellowship to devote himself to investigation upon the subject of synthetic drugs and medicines. Established 1921	FINE ARTS ENDOWMENT FUND: Gift of an anonymous donor to establish this fund for the benefit of the School of Architecture. Established 1913.	FOX (RICHARD H.) MEMORIAL PRIZE FUND: Gift of Mr. and Mrs. Leon S. Fox, the income to provide the Fox Prize in the College. Established 1927.	GARTH MEMORIAL FUND: Gift of Horace E. Garth to establish a fellowship in Political Economy in memory of his son, the late Granville W. Garth. Established 1904.	GEBHARD FUND: Bequest of Frederick Gebhard to found a Professorship of German Language and Literature. Established 1843	GERMAN LECTURE FUND: Gifts for an endowment for Public Lectures in German at the University, the income to be used for advertising, printing, slides, etc. Established 1901	GIBSON (WILLIAM HENRY) SCHOLARSHIP FUND: Gift of Mrs. Honora Gibson Pelton in memory of her father, William Henry Gibson, of the Class of 1875, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1927	GIES (WILLIAM J.) FELLOWSIIIP FUND: Gift of the William J. Gies Fellowship Fund Committee to establish a fellowship in Dental and Mcdical research. Established 1923

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
GILDER (RICHARD WATSON) FUND FOR THE PROMOTION OF GOOD CITIZENSHIP: Contributions by the friends of the late Richard Watson Gilder to establish this fund in his honor, the income to be used to enable succeeding classes of students to devote themselves as 'Gilder Fellows' to the investigation and study of political and social conditions in this country and abroad, etc. Established 1911	\$48,000.00	\$48,000.00	\$48,000.00
GOLDSCHMIDT (SAMUEL ANTHONY) FELLOWSHIP FUND: Gift of George B. Goldschmidt, to establish this fund, as a memorial to Samuel Anthony Goldschmidt, of the Class of 1871, the income to be used for the maintenance of a fellowship in Chemistry. Established 1908	16,500.00	\$8,500.00	25,000.00
GOTTHEIL (GUSTAV) LECTURESHIP FUND: Gift from Temple Emanu-El to establish a lectureship, the holder of which is to be nominated by the Professors in the Department of Semitic Languages, subject to confirmation by the Trustees. Established 1903	13,725.00	4,700.00	18,425.00
GOTTSBERGER (CORNELIUS HEENEY) FELLOWSHIP FUND: Bequest of Ellen Josephine Banker to establish a fellowship to bear the name and be in memory of her deceased brother, Cornelius Heeney Gottsberger. Established 1904	9,500.00	:	9,500.00
GREEN PRIZE FUND: Gift of Mr. and Mrs. Asher Green to establish this fund, in memory of their son, a member of the Class of 1914, the income to provide the Green Prize in the College. Established 1913	1,000.00		1,000.00
GROSVENOR (ROBERT) MEMORIAL FUND: Gift of Mr. William Grosvenor of Providence, R. I., in behalf of his mother and her family, in memory of Robert Grosvenor, deceased, a former member of the Class of 1918 in the Medical School, the income to be used for the purchase of books for the library at the Medical School. Established 1920.	2,500.00	2,500.00	2,500.00

LL (GEORGE HENRY) FUND: Bequest of the late George Henry Hall to establish this fund, the income of which is to be used to maintain continuously one scholar in the University for the full term of four years, such scholar to be selected by the Trustees. Established 1913
MILTON (JOHN CHURCH) FUND: Bequest of Miss Adelaide Hamilton to be set apart as a fund for the purchase of books, as a memorial to her father, John Church Hamilton, a son of Alexander Hamilton, a proper book-plate to be set in each volume purchased with the income of the fund. Established 1917
Gift of Edward S. Harkness, the income to be used for medical education and research. Established 1922
RKNESS (MRS. STEPHEN V.) FUND: Gift of Mrs. Stephen V. Harkness, the income to be used for medical education and research. Established 1922
RRIMAN (REVEREND ORLANDO) FUND: Gift of the children of the late Reverend Orlando Harriman, of the Class of 1835, as a memorial to their father, the income, until further action by the Trustees, to be applied to the salary of the Professor of Rhetoric and English. Established 1908.
RRIS (ELLEN C.) FUND: Bequest of the late Ellen C. Harris for the erection and endowment of a building as a memorial to her mother, the late Evelina M. Harris. Established 1922
RSEN SCHOLARSHIP FUND: Founded by the late Jacob Harsen, M. D., in 1859, the income to be given in prizes. Under an order of the N. Y. Supreme Court in 1903, the income is thereafter to be used for scholarships in the Medical School, to be known as the Harsen Scholarships
RTLEY (FRANK) SCHOLARSHIP FUND: Gitts from friends of the late Frank Hartley, M. D., to endow a scholarship in the College of Physicians and Surgeons, as a memorial. Established 1914

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
HAUGHTON (PERCY D.) MEMORIAL FUND: Gift of the Haughton Memorial Committee in memory of the late Percy D. Haughton, the income to be applied to the rental and maintenance of a specified room in John Jay Hall to be known as the Haughton Memorial Room. Established 1926	\$4,885.20	\$364.50	\$4,520.70
HAYS (MRS, WALTER) FUND FOR MEDICAL RESEARCH: Gift of Mrs. Walter Hays, the income to be used for the promotion of research at the College of Physicians and Surgeons. Established 1929		Decrease 1,000.00	1,000.00
HEMINGWAY (THE) SCHOLARSHIP FUND: Gitt of William Herbert Hemingway, the income to be paid to the donor during his lifetime, and thereafter to be used for the Hemingway Scholarships in Medicine. Established 1928		86,004.35	86,004.35
HEPBURN (A. BARTON) ENDOWMENT FUND: Gift of A. Barton Hepburn, formerly a trustee of the University, the income to be applied, as the Trustees may from time to time provide, to the maintenance and conduct of the School of Business. Established 1918.	770,210.54	117,887.20	888,097.74
HEPBURN (A. BARTON) PROFESSORSHIP FUND: Bequest of the late A. Barton Hepburn, formerly a trustee of the University, to found or aid in founding a professorship in either economics or history. Established 1922	150,000.00	:	150,000.00
HERVEY (WILLIAM ADDISON) MEMORIAL SCHOLARSHIP FUND: Gift of the William Addison Hervey Memorial Committee, the income to provide a scholarship in the department of Germanic Languages. First award October 1, 1925, and biennially thereafter. Es- tablished 1924.	3,510.00	:	3,510.00
HOLT (L. EMMETT) FELLOWSHIP FUND: Bequest of Dr. L. Emmett Holt to establish a fellowship for the study of the diseases of children. Established 1925	24,329.38	24,329.38	24,329.38

5,000.00	R E P 000000's	O R T	O F T	HE TR:	E A S 00.000,51	S,021.28	127 00'000'00
		5,000.00	:			1,000.00	20,000.00
5,000.00	5,000.00		5,000.00	2,300.00	15,000.00	4,021.28	20,000.00
HUBER (FRANCIS) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from an institution other than Columbia College, Barnard College or Hunter College. Established 1921.	HUBER (FREDERICK W. Jr.) SCHOLARSHIP FUND: Gift of Dr. Frederick W. Huber to establish a scholarship to be awarded under the terms of the gift, to a student in the first or freshman year in Columbia College. Established 1924	HUBER (JOSEPH AND CHRISTINA) MEDICAL LIBRARY FUND: Gift of Francis Huber, the income to be expended for the purchase of books on internal medicine. Established 1929	HUBER (VIOLA B.) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from Hunter College. Established 1921	ILLIG FUND: Bequest of William C. Illig, of the Class of 1882 School of Mines, the income to be applied to the purchase of prizes to be awarded to students of the graduating class of the School of Mines, who shall, in the judgment of the Faculty, have merited the same by commendable proficiency in such scientific subjects as the Faculty may designate. Established 1898	INDO-IRANIAN FUND: Gift of an anonymous donor to found this Fund, the income to be used for the maintenance of the Department of Indo-Iranian Languages. Established 1908	JACOBI (ABRAHAM) LIBRARY FUND: Gift of Francis Huber, the income thereof to be expended for the purchase of books and journals on pediatric subjects for the Library of the Medical School. Established 1921	JACOBI (ABRAHAM) SCHOLARSHIP FUND: Gift of Francis Huber to establish four scholarships, two of which shall be awarded to students entering the Medical School from Columbia College and two to students entering the Medical School from the College of the City of New York. Established 1921

At June 30, 1929	\$50,000.00	100,000.00	26,750.00	1,800.00	2,000.00	20,000.00	15,000.00
Additions 1928–1929							15,000.00
At June 30, 1928	\$50,000.00	100,000.00	26,750.00	1,800.00	2,000.00	20,000.00	15,000.00
	JAMES (WALTER BELKNAP) RESEARCH FELLOWSHIP FUND: Bequest of Dr. Walter B. James, the income to be used for the benefit of the College of Physicians and Surgeons. Established 1927. Augmented in 1928 by gift of Mrs. Walter B. James, \$25,000.00	JAMES (D. WILLIS) FUND: Bequest of D. Willis James, the income to be applied until further action by the Trustees, to the salary of the Professor of Geology. Established 1908	JANEWAY (E. G.) LIBRARY ENDOWMENT FUND: Gift of Mrs. Russell Sage to establish the E. G. Janeway Library Endowment Fund, the income of which is to be devoted to the maintenance and extension of the Janeway Library in the College of Physicians and Surgeons. Established 1912	JEFFERSON STATUE MAINTENANCE FUND: From the Executors of the Estate of Joseph Pulitzer, the income to be used for the care and repair of the Statue of Thomas Jefferson. Original gift, \$1,589.92, to which has been added accrued income \$210.08. Established 1917	JOHNSTON (EDWARD W. S.) FUND: Bequest of Mrs. Anna A. Johnston, the income to be used for the upkeep of the Scudder-Johnston collection in the Library. Established 1926	KEMP (JAMES FURMAN) FUND: Gift of an anonymous donor, the income to be exclusively for the benefit of the Department of Geology and to be used for fellowships, scholarships, loans to students or research. Established 1924	KOPLIK CHILDREN'S SCHOLARSHIP FUND: Bequest of Henry Koplik in memory of his wife, Stephanie Koplik, the income to be paid every two years to the physician, under thirty years of age, who shall be selected by a committee appointed by the Faculty of the Medical School for having shown special aptitude for original work in the investigation of diseases of children. Established 1928

LASHER (JOHN K.) FUND: Bequest of the late John K. Lasher, Jr., the income to be applied toward the support of the work of the Columbia University Christian Association. Established 1920	1,000.00		1,000.00	
LAW LIBRARY FUND: Created by act of the Trustees on March 5, 1900, by the consolidation of the Alexander Cole gift (\$1,500, John J. Jenkins Legacy (\$500); John McKeon Fund (\$1,000), Samson Simpson Fund (\$1,000); and Edgar J. Nathan Gift (\$250), the income to be applied to the purchase of law books. Augmented by act of the Finance Committee, October 2, 1907, by adding the Pyne Law Gift (\$1,000).	5,250.00		5,250.00	REPOI
LEE (THE) FUND: Gift of Dr. and Mrs. Frederic S. Lee to establish this fund, the income to be used to meet the cost of equipment and research in the Department of Physiology. Established 1914. Original gift \$20,000.00. Augmented in 1928 by \$10,000.00.	30,000.00		30,000.00	RT OF
LIBBEY (JONAS M.) FUND: Bequest of the late Jonas M. Libbey, the income to be used to promote and support research and to publish and distribute the results of such research in regard to the application of the principles of biological and pathological chemistry, and of electro-chemistry and electro-physics to human need and welfare. Established 1923	209,741.66	258.34	210,000.00	тне т
LOUBAT FUND: Gift of Joseph F. Loubat for prizes to be given every five years for works in the English Language on the History, Geography, Archaeology, Ethnology, Philology or Numismatics of North America. First prize, \$1,000; second prize, \$400. Established 1892	7,000.00		7,000.00	REAS
LOUBAT PROFESSORSHIP FUND: Gift of Joseph F. Loubat to establish the Loubat Professorship in American Archaeology. Established 1903.	100,000.00		100,000.00	URER
MacMAHON (KATHERINE) SCHOLARSHIP FUND: Bequest of the late Katherine MacMahon, the income to be awarded to the first year student in Journalism deemed most worthy by the Faculty of that School as a help for further study in the School of Journalism during the following year. Established 1925. Bequest \$1,500.00 augmented in 1928 by gift from Mrs. Louise Ewing Dexter. \$1,500.00	3,000.00	3,000.00	3,000.00	129

	At June 30, 1928	Additions 1928–1929	At June 30, 1929
MAISON FRANCAISE ENDOWMENT FUND: Gift of Robert Bacon, the income to be used in defraying the running expenses of the Maison Francaise. Established 1913	\$5,000.00		\$5,000.00
MANNERS (EDWIN) FUND: Legacy of the late Edwin Manners to establish this Fund. Established 1914	3,000.00		3,000.00
MARKOE (FRANCIS HARTMAN) SCHOLARSHIP FUND: Bequest of Madeline Shelton Markoe in memory of her husband Francis Hartman Markoe, the income to be awarded annually to a student in the College of Physicians and Surgeons. Established 1929.		\$10,000.00	10,000.00
MARTIN (FREDERICK TOWNSEND) FUND: Bequest of the late Frederick Townsend Martin, the income to be applied to the care and cure of tuberculosis cases through the medium of the Vanderbilt Clinic. Established 1919	10,000.00	10,000.00 Decrease	
MAYER (RALPH EDWARD) FUND: Contributions by the friends of the late Professor Ralph Edward Mayer to establish this fund to perpetuate the memory of his constant devotion to the University and of his unselfish service to the Alumni, the income to be paid to the family of the late Professor Mayer as long as the Trustees of the Fund may deem it expedient. Later the income is to be used for a scholarship or loan fund for the benefit of deserving students in the Schools of Mines, Engineering and Chemistry who may be in need of assistance. Established 1924.	12,313.50		12,313.50

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
MEMBER OF THE CLASS OF 1885 FUND: Gift of Grant Squires, of the Class of 1885, the income to be awarded every five years to defray the expenses of a sociological investigation that promises results of a scientific value. Established 1895.	\$1,050.00		\$1,050.00
MICHAELIS (DR. ALFRED MORITZ) PRIZE FUND: Gift of Mrs. Jeanette Michaelis, to establish this fund, the income to be awarded annually to a student in Columbia College for proficiency in certain designated courses in Physics. Established 1926	1,000.00		1,000.00
MILLER (GUY B.) FUND: Bequest of the late Guy B. Miller, of the Class of 1898, College of Physicians and Surgeons, for the general purposes of the Medical School. Established 1904	10,000.00		10,000.00
MILLER (NATHAN J.) FUND: Gitt of Mrs. Nathan J. Miller, in memory of her husband, Nathan J. Miller, to found a Chair in Jewish History, Literature and Institutions. Established 1928		\$250,000.00	250,000.00
MITCHELL (WILLIAM) FELLOWSHIP FUND: Bequest of the late Benjamin D. Stillman to establish, in honor and memory of his friend, William Mitchell, deceased, the William Mitchell Fellowship Fund in Letters or Science. Established 1908.	10,000.00		10,000.00
MOFFAT SCHOLARSHIP FUND; Bequest of William B. Moffat, M. D., of the Class of 1838, 'for the purpose of one or more scholarships for the education and instruction of one or more indigent students.' Established 1862	2,000.00		2,000.00
MONTGOMERY (ROBERT H.) PRIZE FUND: Gift of Robert H. Montgomery to establish this fund, the income to be awarded as a prize to the member of the graduating class of the School of Business who has specialized in accounting and who is deemed by the staff of the School of Business to be most proficient in all courses. Established 1916.	2,010.00	2,010,00	2,010.00

	12,500.00		O F T 00200°6	7 T A H E T R	5,700.00	15,000.00	133
	7 500 00	10,000.00	3,050.00	2,000.00	5,700.00	15,000.00	50,000.00 10,0
MORRIS (AUGUSTUS NEWBOLD) FUND: Gift of Newbold Morris, of the Class of 1891 Law, in memory of his father Augustus Newbold Morris, of the Class of 1860, the income to provide a fellowship for an advanced student of Public or Private	Law who may be a candidate for the degree of Doctor Juris. Established 1924	.	ORDRONAUX (JOHN) FUND: Bequest of Dr. John Ordronaux, to establish prizes in the Law School, to be presented annually. Established 1999	PEELE (ROBERT) PRIZE FUND: Gift of E. E. Olcott, the income to be given annually to a member of the graduating class in mining and metallurgical engineering who shall have shown the greatest proficiency in his course of study. Established 1925	PERKINS FELLOWSHIP FUND: Bequest of Willard B. Perkins, the income to be expended every four years for a traveling fellowship in the Architectural Department. Established 1898	PERKINS (EDWARD H., Jr.) SCHOLARSHIP FUND: Bequest of Norton Perkins in memory of his father, Edward II. Perkins, Jr., the income to provide a scholarship in History or Economics. Established 1926	PETERS (WILLIAM RICHMOND, Jr.) FUND FOR ENGINEERING RESEARCII: Gift of Mr. and Mrs. William R. Peters to establish this fund as a memorial to their son, William Richmond Peters, Jr., of the Class of 1911, Civil Engineering, the income of which is to be applied to the work of research in the Department of Civil Engineering. Established 1912

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	At June 30, 1928	Additions 1928-1929	At June 30, 1929	134
PHILOLEXIAN CENTENNIAL WASHINGTON PRIZE FUND: Gift of the Philolexian Society from J. Ackerman Coles, of the Class of 1864, the accumulated income to be expended every four years for a duplicate of the life-size bronze bust of George Washington, modeled from life at Mourt Vernon, by Jean Antoine Houdon. Bust to be cast at the Barbadienne Foundry, Paris, France, and to be given to that member of the Philolexian Society, who, in the opinion of the President of the University, the President of the Society, and a third man of their choosing, shall be deemed most worthy, upon his delivery of an original patriotic address. Established 1902.	00.000,1\$	\$1,000.00	\$1,000.00	COLUMI
PHILOLEXIAN PRIZE FUND: From the Philolexian Society, the income to be paid to the Society for prizes. Established 1904	1,400.00		1,400.00	ВІА
PHOENIX LEGACY: Bequest of the late Stephen Whitney Phoenix, the income to be used for the purpose of scientific instruction and research. Established 1881	1,171,955.78	\$28,044.22.	1,200,000.00	UN
PRESIDENT'S HOUSE (FURNISHING AND EQUIPMENT) FUND: Created by act of the Trustees on November 6, 1922, by the transfer of \$13,415.13 remaining in the anonymous gift of \$30,000.00 reported to the Trustees on March 6, 1911, and increased from the general funds of the University to \$20,000.00, this sum to constitute the principal of a special fund for the furnishing and equipment of the President's House, the income of which, and if necessary any portion of the principal, to be expended as may be needed under the direction of the President. Established 1922.	17,034.57	1,240.08	15,794.49	IVERSITY
PROUDFIT (ALEXANDER MONCRIEF) FELLOWSHIP FUND: Bequest of the late Alexander Moncrief Proudfit, of the Class of 1892, to found a fellowship for the encouragement of study in English Literature, to be known as the 'Alexander Moncrief Proudfit Fellowship in Letters,' to be held only by such persons as, being the sons of native-born American parents, shall have taken the degree of Bachelor of Arts after a three years' residence in Columbia College, and shall, while enjoying such fellowship, or the income thereof, remain unmarried. Established 1899.	15,000.00	Decrease 15,000.00	15,000.00	

RI	EPOR	T OF	тне	TREAS	SURER	135
15,000.00	100,000.00	1,850,000.00	283,437.50	2,500.00	5,000.00	57.488.00
		81,225.43		2,500.00		1,900.00
15,000.00	100,000.00	1,768,774.57	283,437.50		5,000.00	55,588.00
PROUDFIT (MARIA MCLEAN) FELLOWSHIP FUND IN MEDICINE: Bequest of the late Alexander Moncrief Proudft, of the Class of 1892, to found a fellowship to be known as the 'Maria McLean Proudft Fellowship,' to be held only by such persons, as being the sons of native-born American parents, shall, under the direction of the Medical Faculty of Columbia College, pursue advanced studies in Medicine, and shall, while enjoying such fellowship, or the income thereof, remain unmarried. Established 1899	PSYCHOLOGY FUND: Gift of John D. Rockefeller, as an endowment of the head professorship of the Psychological Department of Columbia University. Established 1899	PULITZER (JOSEPH) FUND FOR SCHOOL OF JOURNALISM: Gift from Joseph Pulitzer to establish and endow a School of Journalism in Columbia University. Established 1903	PULITZER SCHOLARSHIP FUND: Gift of \$100,000 by Joseph Pulitzer to found thirty scholarships for graduates of City Grammar Schools, one-half the sum to be used on improvements on the new site at 116th St. Established 1893. Augmented in 1912.	RECKFORD (LOUIS J.) FUND: Gift of Miss Adelaide Reckford in memory of her father, Louis J. Reckford, of the Class of 1886, the income to be used for the purchase of books and other illustrative material for the University Library. Established 1929.	REISINGER (HUGO) FUND: Bequest of the late Hugo Reisinger, the income to be applied in the discretion of the Trustees to the purchase of books, periodicals, and other material for instruction and research in matters relating to the German peoples. Established 1919.	REVOLVING LOAN FUND FOR ATHLETIC ACTIVITIES: Gift of various donors to establish a Revolving Loan Fund for Athletic Activities, the principal to be loaned to the University Committee on Athletics at such times, for such purposes, and on such terms and conditions as the Trustees may approve. Established 1927.

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
RHODES (F. P. F.) SCHOLARSHIP FUND: Gift of E. E. Olcott in memory of his classmate, Francis Pell Forsyth Rhodes, School of Mines, '74, to establish this fund, the income to be awarded on Commencement Day of each year to a member of the graduating class in Metallurgy, in accordance with the terms of the gift. Established 1926	\$2,171.11		\$2,171.11
ROGERS (HOWARD MALCOLM) SCHOLARSHIP FUND: Bequest of the late Henrietta Rogers to establish this Fund. Established 1925	4,750.00		4,750.00
ROLKER (CHARLES M., Jr.) PRIZE FUND: Gift of Mrs. Charles M. Rolker, the annual income to constitute a prize to be publicly awarded on Class Day of each year to that member of the graduating class in Columbia College who, in the judgment of his classmates, has proven himself most worthy of special distinction as an undergraduate student, either because of his industry and success as a scholar, or because of his helpful participation in student activities, or because of pre-eminence in athletic sports. Established 1909	1,000.00		1,000.00
ROMAINE (BENJAMIN F.) PRIZE FUND: Gift of Benjamin F. Romaine to establish a prize for proficiency in the Greek language and literature. Established 1922.	3,630.00		3,630.00
ROSS (GEORGE) FUND: Bequest of the late Catherine A. Ross, the income to be used for the advancement and development of athletics at Columbia University. Established 1923	22,393.94		22,393.94
SANDHAM (ANNA M.) SCHOLARSHIP FUND: Bequest of the late Anna M. Sandham to establish a scholarship at Barnard College. Established 1922	10,000.00		10,000.00
SAUNDERS (ALEXANDER) SCHOLARSHIP FUND: Bequest of the late Mary Ellen Saunders in memory of her husband Alexander Saunders to establish an undergraduate scholarship for the benefit of an American boy of Scotch, English or Irish parentage, to be nominated by the superintendent, principal and teachers of the Yonkers High School, in Yonkers, N. Y. Established 1922.	12,000.00	12,000.00	12,000.00

SAUNDERS (LESLIE M.) SCHOLARSHIP FUND:				
Bequest of the late Alexander Saunders to establish a scholarship for the benefit of the youth nominated therefor by the principal and teachers of the Yonkers High School in Yonkers, N.Y., in the first instance, and thereafter to fill a vacancy as it may occur from time to time perpetually, and upon such conditions as such principal and teachers may determine, with such power and authority to them to fill such a scholarship for a term of either one year, two years, three years, or four years, as they may from time to time determine. Established 1917	6,000.00	6,000.00	· ·	6,000.00
SCHERMERHORN (F. AUGUSTUS) FUND: Established by the Trustees for a traveling fellowship in the Department of Architecture in recognition of the liberality of Mr. F. Augustus Schermerhorn of the Class of 1868, to this Department. This fellowship is awarded in even-numbered years. (Name changed from Columbia Fellowship Fund.) Principal reduced from \$13,000.00 to \$12,500.00. Established 1889	12,500.00		12,5	12,500.00
SCHERMERHORN SCHOLARSHIP FUND: Bequest of John J. Schermerhorn, of the Class of 1825, 'for the purpose of free scholarships, the nomination to which shall vest in my nearest male relative in each generation during his lifetime.' Established 1877.	5,000.00		5,00	5,000.00
SCHERMERHORN (WILLIAM C.) MEMORIAL FUND: Bequest of Mrs. John Innes Kane in memory of her father, William C. Schermerliorn, the income to be applied, as the Trustees may direct, to the support of the religious work of the University. Established 1927.	500,000.00		200,000.00	0.00
HIFF FELLOWSHIP FUND: Gift of Jacob H. Schiff to found a fellowship in the School of Political Science, to be annually awarded by the Faculty on the nomination of the donor or his eldest living male descendant, etc. Established 1898.	18,000.00		18,000.00	00:
SCHIFF (JACOB H.) ENDOWMENT FUND: Git of Jacob II. Schiff for the endowment of a Professorship of Social Economy in order to make possible a close affiliation between Columbia University and the New York School of Philanthropy. Established 1905.	100,000.00		100,000.00	8

	At June 30, 1928	Additions 1928–1929	At June 30, 1929	J O
SCHOOL OF DENTAL AND ORAL SURGERY ENDOWMENT FUND:				
Gitt of various donors for the endowment of the School of Dental and Oral Surgery. Established 1929.		\$56,500.00	\$56,500.00	
SCHURZ (CARL) FELLOWSHIP FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz. Established 1900	\$10,000.00	:	10,000.00	
SCHURZ (CARL) LIBRARY FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz, the income to be devoted to the purchase of books, maps, pamphlets and the like, in the field of the German Language and Literature. Established 1900.	10,700.00		10,700.00	
IDL FUND: The proceeds of a memorial performance held at the Metropolitan Opera House on March 23, 1899, in honor of the late Anton Seidl, the income of the fund to be paid to Mrs. Seidl during her lifetime, and thereafter 'to be awarded at least every second year to the most promising candidate, either man or woman, prepared to devote himself, or herself, to the study of musical composition at Columbia University, or elsewhere in this country or abroad	12,000.00		12,000 00	
SHOEMAKER (WILLIAM BROCK) FUND: Gift as a memorial to the late William Brock Shoemaker, of the Class of 1902, in Columbia College established jointly by his wife, Ella de Peyster Shoemaker, and his father, Henry F. Shoemaker, the income to be used for the benefit of self-supporting students. Established 1908	10,000.00		10,000.00	
SIMON (THEODORE W.) FUND: Bequest of Theodore W. Simon for the general purposes of the Medical School. Established 1927	8,588.26		8,588.26	
		-		

D., as a memorial of his 1826 to 1866. An annual year by an alumnus of the 3,500.00 3,500.00	annually as a scholarship urces are, in the judgment 10,000,00 10,000,00 20,000,00	47,943.27	10,000.00	of the College of Physi- three years for the best tee in charge of the prize. 1,900.00 1,900.00	tures, prizes or essays by 20,000,00	y Barculo Stuart, of the additional the condition of the
SMITH PRIZE FUND, SCHOOL OF MEDICINE: Gift of relatives, friends and pupils of the late Joseph Mather Smith, M. D., as a memorial of his services as Professor in the College of Physicians and Surgeons from 1826 to 1866. An annual prize of \$100 is to be awarded for the best essay on the subject for the year by an alumnus of the College. Established 1894.	SMYTH (DAVID W.) SCHOLARSHIP FUND: Gift of David W. Smyth, of the Class of 1902, the income to be awarded annually as a scholarship to a student in Columbia College whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the expenses of a collegiate education. Established 1926	SOCIAL AND POLITICAL ETHICS PROFESSORSHIP FUND: To endow a chair of Social and Political Ethics. Established 1918	STEERS (JAMES R.) FUND: Bequest of the late James R. Steers of the Class of 1863 Law, to found a free bed in the Sloane Hospital for Women in the name of his daughter, Fannie Steers Reeve. Established 1919	STEVENS PRIZE FUND, SCHOOL OF MEDICINE: Established by the late Alexander Hodgson Stevens, formerly President of the College of Physicians and Surgeons. The income of the fund is to be awarded every three years for the best medical essay covering original research as determined by the committee in charge of the prize. Established 1891	STOKES (CAROLINE PHELPS) FUND: Bequest of the late Caroline Phelps Stokes, the income to be used for lectures, prizes or essays by the students of Columbia, Barnard and Teachers Colleges. Established 1910	STUART SCHOLARSHIP FUND: The gift of Mrs. Cornelia A. Akwill, in memory of her grandsons, Sidney Barculo Stuart, of the Class of 1880, and Eugene Tolman Stuart, of the Class of 1881, to found two scholarships in the College, to be known as "Stuart Scholarships." Established 1895

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
SWIFT MEMORIAL FUND: Gift from the Trustees of the Association of the Alumni of the College of Physicians and Surgeons, representing the principal sum and accrued income as of December 31, 1920, of the Swift Memorial Fund, created in 1883 by Dr. James T. Swift as a memorial to his brother, Dr. Forest Swift, of the Class of 1857. Established 1921	\$8,032.75		\$8,032.75
TOPPAN PRIZE FUND: Gift of Mrs. Sarah M. Toppan, to establish this fund in memory of her late husband, Robert Noxon Toppan, the income to be used annually in providing the Robert Noxon Toppan Prize in the School of Law. Established 1904	4,200.00		4,200.00
TROWBRIDGE FELLOWSHIP FUND: Gift of the Alumni Association of the School of Mines as a memorial of the late Professor Trowbridge, to establish the 'William Petit Trowbridge Fellowship in Engineering.' Established 1893	10,000.00	\$2,000.00	12,000.00
TURNER (CHARLES W.) SCHOLARSHIP FUND: Gift of Wallis S. Turner, of the Class of 1900, to establish, in memory of his father, Charles W. Turner, a scholarship in Columbia College, to aid the education of a needy or deserving student, to the end that through the advantages of such education the recipient may aspire to the highest type of American Citizenship. Established 1920	00.000,9		6,000.00
TYNDALL FELLOWSHIP FUND: Gift of the late Professor John Tyndall, of London, the income to be applied to the support of 'American pupils who may have shown decided talent in Physics, etc.' Established 1885	11,500.00		11,500.00
UNIVERSITY PUBLICATION FUND: Created by act of the Trustees November 6, 1922, from part of the bequest of the late Daniel B. Fayerweather, the income of such fund, and if necessary any portion of the principal, to be expended under the direction of the President, to meet the cost of publishing works of scholarship and research through the Columbia University Press. Established 1922	7,857.64	7,857.64	7,857.64

t of the Class of 1898 in commemoration of the twenty-fifth anniversary of its graduation and in memory of John Howard Van Amringe of the Class of 1860 to establish a fund, the income to be used in providing a bronze medal to be awarded each year to that member of the Sophomore Class who shall have most distinguished himself for service, character and courtesy in his rela-	e University. Established 1923	AMRINGE (PROFESSOR) MATHEMATICAL PRIZE FUND: t of George G. DeWitt, of the Class of 1867, to establish this fund, the annual income to constitute the Professor Van Amringe Mathematical Prize in Columbia College. Established 1910 5,100.00	AMRINGE MEMORIAL FUND: abilished by the transfer of the balance of gifts received for the Van Amringe Memorial, the income to be used for the upkeep and repair of the Van Amringe Memorial. Established 1927 461.83	BUREN (JOHN D., Jr.) MATHEMATICAL PRIZE FUND: t of Mrs. Louis T. Hoyt, to establish this fund in memory of her nephew, John Dash Van Buren, Jr., of the Class of 1905, Established 1906	es, at their discretion, for research into the causes 5,000.00 3,000.00	ENSSELAER (MARIANA GRISWOLD) PRIZE FUND: t of Maximilian Foster, the income to be awarded to the student who submits during the college year the best example of English lyric verse. Established 1926	NG FUND: Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of \$100,000 to perpetuate the memory of the late George E. Waring. The income of the fund (to be not less than \$4,000 per year) is to be paid semi-annually to the widow and daughter of Colonel Waring during their lifetime, and thereafter 'the income shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and
VAN AM PRIZE FUND: Gift of the Class of 1898 in commemoration of the twenty-fifth anniversary of its graduation and in memory of John Howard Van Amringe of the Class of 1860 to establish a fund, the income to be used in providing a bronze medal to be awarded each year to that member of the Sophomore Class who shall have most distinguished himself for service, character and courtesy in his rela-	tions to faculty, fellow students and visitors to the University. Established 1923	VAN AMRINGE (PROFESSOR) MATHEMATICAL PRIZE FUND: Gift of George G. DeWitt, of the Class of 1867, to establish this fund, the annual income to constitute the Professor Van Amringe Mathematical Prize in Columbia College. Established 1910	VAN AMRINGE MEMORIAL FUND: Established by the transfer of the balance of gifts received for the Van Amringe Memorial, the income to be used for the upkeep and repair of the Van Amringe Memorial. Established 1927	VAN BUREN (JOHN D., Jr.) MATHEMATICAL PRIZE FUND: Gift of Mrs. Louis T. Hoyt, to establish this fund in memory of her nephew, John Dash Van Buren, Jr., of the Class of 1905, Established 1906.	VAN PRAAG (L. A.) FUND: Bequest of L. A. Van Praag to be used by the Trustees, at their discretion, for research into the causes and cure of cancer. Established 1915	VAN RENSSELAER (MARIANA GRISWOLD) PRIZE FUND: Gift of Maximilian Foster, the income to be awarded to the student who submits during the college year the best example of English lyric verse. Established 1926	WARING FUND: The Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of \$100,000 to perpetuate the memory of the late George E. Waring. The income of the fund (to be not less than \$4,000 per year) is to be paid semi-annually to the widow and daughter of Colonel Waring during their lifetime, and thereafter 'the income shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and

	At June 30, 1928	Additions 1928-1929	At June 30, 1929
WATSON (DR. WILLIAM PERRY) FOUNDATION IN PEDIATRICS: Gift of Dr. William Perry Watson, to establish a permanent fund, the annual income of which shall be given in cash to that member of the graduating class showing the most efficient work in the study of the Diseases of Infants and Children. Established 1921	\$5,087.24		\$5,087.24
WEINSTEIN (ALEXANDER) MEMORIAL FUND: Gift of the classmates and friends of the late Alexander Weinstein, a member of the Class of 1921 College of Physicians and Surgeons, to establish this fund, the income from which is to be used in purchasing amnually for the library of the Medical School additional copies of those reference books which are in greatest demand among the students. Established 1921	800.00		800.00
WENDELL MEDAL FUND: Gift of the friends in the Alumni and Faculty of the late Professor George Vincent Wendell to honor and perpetuate his memory, the income to be applied to the cost of a medal to be awarded each year to a student in the graduating class of the Schools of Mines, Engineering and Chemistry who has been chosen by his class as best exemplifying the ideals of character, scholarship and service represented by Professor Wendell. Established 1924	390.00		390.00
WHEELER (H. A.) SCHOLARSHIP FUND: Gift of H. A. Wheeler of the Class of 1880, School of Mines, to establish a scholarship for students in mining, engineering or geology who need financial assistance to carry on their work in the undergraduate department of Columbia University. Established 1923	6,000.00		6,000.00
WHEELER (JOHN VISSCHER) SCHOLARSHIP FUND: Bequest of the late Susan E. Johnson Hudson to establish this fund, the income to provide a scholarship in the University. Established 1914	12,000.00	12,000.00	12,000.00

e s.027.07 s 5.027.07	50,000.00 50,000.00	\$33,427,722.52 \$1,063,468.33 \$34,491,190,85
WHEELOCK (GEORGE G.) FUND: Gift of Mrs. George G. Wheelock and William H. Wheelock, to establish this fund in memory of the late Dr. George G. Wheelock, the income to be used to meet the needs of the Department of Physiology. Established 1907	FIRE INSURANCE FUND: For the purpose of meeting the cost of repairing damage due to fire in those academic buildings which are not specifically insured	

PERMANENT FUNDS

ESTABLISHED BY GIFT FOR THE PURCHASE OF LAND AND ERECTION AND EQUIPMENT OF BUILDINGS

	At June 30,	Additions	At June 30,
	1928	1928-1929	1929
Apparatus: Optical	\$7,110.00		\$7,110.00
Autobiography: John Stuart Mill	100.00		100.00
Avery Architectural Building	341,079.68		341,079.68
Baker Field	732,483.30		732,483.30
Morningside Heights Site	331,150.00		331,150.00
Boat House: Baker Field	4,361.75		4,361.75
Boat House: Class of 1897	8,000.00		8,000.00
Casa Italiana	315,000.00		315,000.00
Castings: Duriron	75.00		75.00
Chapel Furnishing	3,382.00		3,382.00
Chemical Laboratories	30,000.00		30,000.00
Clock: Class of 1906	1,159.64		1,159.64
Crocker Research Laboratory: X-Ray			
Equipment	18,465.53		18,465.53
Da Costa Laboratory	20,000.00		20,000.00
Deutsches Haus	30,000.00		30,000.00
Earl Hall: Building	164,950.82		164,950.82
East Field	420,000.00		420,000.00
Egleston (Professor): Setting of Bust	390.00		390.00
Engineering Apparatus	450.00		450.00
Exedra, Granite	5,000.00	l	5,000.00
Faculty House: Building	306,965.37	[306,965.37
Faculty House: Equipment	28,047.48		28,047.48
Fayerweather Hall: Building	330,894.03		330,894.03
Filter, Rotary	1,000.00		1,000.00
Flagstaff: Class of 1881	4,600.00		4,600.00
Fountain of Pan	12,013.50		12,013.50
Furnace, Hegeler	2,000.00		2,000.00
Furnald Hall: Building	350,000.00		350,000.00
Gates: Class of 1882	1,500.00		1,500.00
Gates: Class of 1888	2,000.00		2,000.00
Gates: Class of 1891	15,000.00		15,000.00
Goldsmith Library	850.00		850.00
Hamilton Hall: Building	507,059.16		507,059.16
Hamilton Hall: Clock	1,913.90		1,913.90
	2,020.00		2,020.00
Hamilton Hall: Gates	1,000.00	1	1,000.00
Hamilton Hall: Gemot			20.00
Hamilton Hall: Class of 1909 Shield	20.00 11,000.00		11,000.00
Hamilton Statue			5,000.00
"Hammerman"	5,000.00		350,000.00
Hartley Hall: Building	350,000.00		
Hartley Hall: Stained Glass Windows	2,000.00		2,000.00
Havemeyer Hall: Building	414,206.65		414,206.65
Havemeyer Hall: Annex	511,922.31		511,922.31
Havemeyer Hall: Laboratory	600.00		600.00
Highland, N. Y.: Property	30,000.00		30,000.00
Illuminating University Grounds	1,035.00		1,035.00
Instruments: Optical	9,930.00		9,930.00
John Jay Hall: Building	63,950.00	\$375.00	64,325.00
John Jay Hall: Equipment	6,000.00		6,000.00
Kent Hall: Building	495,672.57		495,672.57
Library: Building	1,100,639.32	1	1,100,639.32

Library: Marble Columns				
Library Equipment. \$2,570.00 \$2,570.00 Library: Marble Columns. 1.678.00 1.124.00 3.3300.00 3.3300.00 3.3300.00 3.3500.00 3.3500.00 3.556.001.00 1.124.00 3.556.981.67 \$64.587.35 \$3.601.569.02 Medical School (New): Residence Hall Site \$529,647.05 \$29,647		At June 30.	Additions	At June 30.
Library: Marble Columns				
Library: Marble Columns				
Library: Marble Columns	Library Equipment	\$2.570.00		\$2,570.00
Library: Torcheres				1,678,00
Livingston Hall: Memorial Window				6,000.00
Maison Francaise: Building. 33,300.00 33,300.00 Medical School (New): Building. 3,33,691.67 \$64,587.35 3,601,569.02 Medical School (New): Site. 985,001.00 985,001.00 Medical School (Old): Additions. 117,842.07 117,842.07 Medical School (Old): Building. 71,551.05 71,551.05 Medical School: Removing and Rebuilding 53,000.00 53,000.00 Medical School: Removing and Rebuilding 300.00 300.00 Model: Buildings and Grounds. 19,972.70 19,972.70 Model: Braden Copper Co. 1,700.00 1,700.00 Nichols Laboratories. 30,000.00 30,000.00 Pathological Laboratory. 19,136.94 19,136.94 Philosophy Building. 350,000.00 350,000.00 Phylioscy Building. 30,000.00 30,000.00 Power House: Steam Boilers. 3,250.00 3,2				
Medical School (New): Building 3,536,981.67 \$64,587.35 3,601,569.02 Medical School (New): Residence Hall Site 985,001.00 985,001.00 Medical School (Old): Additions 117,842.07 117,842.07 Medical School (Old): Building 71,551.05 71,551.05 Medical School: Removing and Rebuilding 53,000.00 53,000.00 Medical School: Removing and Rebuilding 300.00 300.00 Medical School: Removing and Rebuilding 14,912.80 14,912.80 Mineral Specimens: Dufourcq Collection 300.00 300.00 Model: Braden Copper Co. 1,700.00 1,700.00 Model: Braden Copper Co. 1,700.00 250.00 Michols Laboratories 30,000.00 30,000.00 Pathological Laboratory 19,136.94 19,136.94 Philosophy Building 350,000.00 350,000.00 Physics: Building 310,748.90 810,748.90 Power House: Steam Boilers 3,250.00 3,250.00 Precision Laboratory 8,000.00 3,200.00 President's House Furnishing 14,410.17 14,410.17				
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Medical School (Old): Building. 71,581.05 71,551.05 Medical School: Removing and Rebuilding. 73,551.05 71,551.05 Medical School: Removing and Rebuilding. 53,000.00 53,000.00 Medical and Surgical Equipment. 14,912.80 14,912.80 Mineral Specimens: Dufourcq Collection. 300.00 300.00 Model: Buildings and Grounds. 19,972.70 19,972.70 Model: Braden Copper Co. 1,700.00 1,700.00 Michols Laboratories. 30,000.00 30,000.00 Pathological Laboratory. 19,136.94 19,136.94 Philosophy Building. 350,000.00 350,000.00 Physics: Building. 810,748.90 810,748.90 Power House: Steam Boilers. 3,250.00 3,250.00 Precision Laboratory. 8,000.00 8,000.00 President's House Furnishing. 14,410.17 14,410.17 Publications: Cragin Collection. 1,400.00 1,400.00 Pylon: Class of 1890. 8,598.72 8,598.72 St. Paul's Chapel: Bell. 5,120.84 5,120.84 St. Paul's Chapel:			-	
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South Court Fountains 4,932.88 4,932.88 South Field 54,707.00 54,707.00 South Field Grading 11,500.00 11,500.00 Statue of Science and pylon: Class of 1900 13,148.95 13,148.95 Sun Dial—116th Street 10,000.00 10,000.00 Telescope 5,497.35 5,497.35		1,840.00		1,840.00
South Field 54,707.00 54,707.00 South Field Grading 11,500.00 11,500.00 Statue of Science and pylon: Class of 1900 13,148.95 13,148.95 Sun Dial—116th Street 10,000.00 10,000.00 Telescope 5,497.35 5,497.35		4,932.88		4,932.88
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Sun Dial—116th Street. 10,000.00 10,000.00 Telescope. 5,497.35 5,497.35		13,148.95		13,148.95
Telescope		10,000.00		10,000.00
		5,497.35		5,497.35
1 ropny Room: Equipment 980.00 980.00 980.00	Trophy Room: Equipment	980.00		980.00
University Hall: Enlargement	University Hall: Enlargement	100,756.41		100,756.41
Van Amringe Memorial	Van Amringe Memorial	20,238.34		20,238.34
Vanderbilt Clinic: Building	Vanderbilt Clinic: Building	350,000.00		350,000.00
Villard (Henry) Legacy	Villard (Henry) Legacy	50,000.00		50,000.00
\$17,184,574.52 \$1,249,998.26 \$18,434,572.78		\$17,184,574.52	\$1,249,998.26	\$18,434,572.78

GIFTS AND BEQUESTS

Received for the Purchase of Land and Erection and Equipment of Buildings

[See Permanent Funds, pages 140 and 141]

(For list of gifts other than money see separate pamphlet)

(For list of gif	ts other than money see separate p	amphlet)	
	Α		
Name	Purpose	Date	A mount
	Precision Laboratory: Physics Building	1913	\$8,000.00
Aldrich (Mrs. Richard)	Street	1910 1917 1906	30,000.00 5.00 300.00
Alumni Association of Colum-	.Hamilton Hall Building	1906	997.50
	. Hamilton statue, South Field	1908	10,000.00
bia College	.University Hall, enlargement .School of Dental & Oral Surgery	1900-13	100,756.41
	(new)	1921-27	28,540.29
	\$28,540.29		
	. Medical School (old) AdditionsFurnishing President's House Gift\$30,000.00 Expenses \$2,174.70 Transfer to Special Endowments 13,415.13	1917 1910	5,000.00 14,410.17
Anonymous. Anonymous. Anonymous. Anonymous. Anonymous. Anonymous. Anonymous.	Chemical Laboratories: Have- meyer Hall	1915 1909 1929 1917-19 1915 1919-21 1906-08 1908 1926	30,000.00 1,000.00 150,007.65 10,691.58 15,000.00 4,712.80 19,972.70 2,846.62 2,861.75
	\$25,940.98 Expended		
	Dalance (Ght acct.): \$25,075.25		

. Name Purpose	Date	Amount
Anonymous	1926-27	75,891.20
\$75,891.20		
Anonymous	1909 1922 1921 1911-14	1,500.00 980.00 200.00 339,250.00
В		
Babcock (Samuel D.). Morningside Heights Site Babcock & Wilcox. Steam Boilers—Power House Baker (George F., Jr.). Medical School (old) Additions Baker (George F.). Baker Field	1892 1907 1917 1922-24	5,000.00 3,250.00 2,500.00 730,583.15
Total amount of gifts \$771,940.59 Taxes, etc, 41,357.44		
\$730,583.15		
Baldwin (Helen, M.D.)Medical School (old) Additions	1917	100.00
Bausch & Lomb Optical Co Optical Instruments Beck (Chas. Bathgate) Be-	1920-24	9,100.00
questKent Hall Building	1899-1912	385,672.57
Total Bequest \$382,808.37 Interest on bequest 10,373.20		
\$393,181.57 Less legal expenses 7,509.00		
\$385,672.57		
Beekman (Gerard)Beekman window: St. Paul's		
Chapel Beekman (Gerard)Minturn window: St. Paul's	1906	600.00
Chapel	1906	600.00
Benson (Mary)Medical School (old) Additions Bernheim (A. C.)Morningside Heights Site	1917 1892	25.00 1,000.00
Bernheim (Mrs. Geo. B.) Medical School (old) Additions Bondy Fund Income X-Ray Equipment: Crocker Lab-	1917	1,000.00
oratory	1922	10,677.85
Brackenridge (Geo. W.)Medical School (old) Additions Braden Copper CoModels of copper mines	1917 1925	50,000.00 1,700.00
Bruce (Catherine Wolfe)Telescope for New Observatory Gift of \$10,000 received 1899. The gift with interest was partly used in expenses, the balance remaining was used in part payment of the cost of a telescope in the Physics Building erected in 1925-26.	1899	5,497.35
Burgess (Annie P.) Estate ofJohn Jay Hall Construction	1927-29	6,525.00

Name Purpose	Date	A mount
Burgess (Annie P.) Estate of . School of Business Building \$63,396.26 Interest 792.45	1913-24	64,188.71
111010501111111111111111111111111111111		
\$64,188.71		
C		
Carnegie CorporationMedical School (new) Building Carter (Henry C.)Morningside Heights Site Cheesman (Dr. T. M.)Cheesman Window: St. Paul's	1925-28 1892	1,100,000.00 150.00
Chapel	1905	600.00
Cheesman (Dr. T. M.) Estate of	1920	11,162.81
Bequest\$10,000.00 Interest1,162.81	1920	11,102.81
\$11,162.81		
Clark (Alfred C) Manningside Heights Site	1893	10,000.00
Clark (Alfred C.)Morningside Heights Site Clark (Edward Severin)Fountain of Pan: the Grove	1908-09	12,013.50
Clark (J. William)School of Dental and Oral Surgery		
(New)	1927	\$10,511.11
Interest 511.11		
010 511 11		
\$10,511.11		
Class of 1874Marble Columns in Library	1912-13	1,678.00
Class of 1880Gates: Hamilton Hall	1907	2,020.00
Class of 1881, Arts and MinesGemot: Hamilton Hall	1911	1,000.00
Class of 1881Flagstaff: the Quadrangle	1906	4,600.00
Class of 1881, College, Mines		
and Political ScienceMantel: John Jay Hall	1926	2,500.00
Class of 1882	1897-98	1,500.00
Class of 1882, ScienceTorchères: School of Mines Class of 1883, Arts, Mines and	1907	1,000.00
Political ScienceTorchères: St. Paul's Chapel	1908	5,280.00
Class of 1883, MinesSetting Bust of Professor Egleston	1913	390.00
Class of 1884, Arts and Mines Clock: Hamilton Hall	1907	1,913.90
Class of 1884, ScienceGrading South Field	1909	5,000.00
Class of 1885, CollegeStained glass window "Sophocles,"		
Hartley Hall	1885	1,000.00
Class of 1885, CollegeSun Dial: South Field	1910	10,000.00
Class of 1886	1911	5,000.00
119th Street	1913	2,000.00
Class of 1889 Barnard window: St. Paul's		
Class of 1889, Mines Meunier Statue, "The Hammer-	1914	1,200.00
man": the Quadrangle	1914	5,000.00
Class of 1890Statue of Letters and pylon: S.E.	.,	0,000.00
Cor. Broadway and 116th Street	1913-16	8,598.72
Class of 1891, CollegeStained Glass Window "Vergil"		
(Hartley Hall)	1891	1,000.00
Class of 1891	1916	15,000.00
gineering Buildings Class of 1893Bell: St. Paul's Chapel	1918	5,120.84
zozo		-,

Name Purpose	D-4-	4
•	Date	Amount
Class of 1896, Arts and Mines. Panels: John Jay Hall	1926 1922-23	2,500.00
Class of 1897, Arts and Mines. Prentice Eight-oared Shell	1922-23	8,000.00 1,500.00
Class of 1899Grading South Field	1909	5,000.00
Class of 1900 Statue of Science and pylon: N. E.	.,,,	0,000,00
cor. Broadway and 116th Street	1925	13,148.95
Class of 1906	1916	1,159.64
Class of 1909Shield: Hamilton Hall	1912	20.00
Class of 1915, College and		
Science	1927	1,000.00
Clinton (DeWitt)	19 0 6 19 0 9	300.00
College of Dental and Oral	1909	100,000.00
Surgery Equipment: School of Dental and		
Oral Surgery	1924	656.00
College of Dental and Oral		
Surgery School of Dental and Oral Surgery	1924	462,529.32
Value of Buildings		
and Grounds \$444,529.59 Cash 17,999.73		
\$462,529.32		
College of Physicians and		
Surgeons	1903	71,551.05
Association	1921	30,000.00
Converse (E. C.)	1919	1,000.00
Cragin (E. B.)Publications	1919	1,400.00
Crocker Fund IncomeX-Ray Equipment Crocker Lab-		
oratory	1921	7,787.68
Cutting (R. Fulton)Morningside Heights Site	1893	10,000.00
D		
Da Costa (Charles M.)Laboratory, Schermerhorn Hall	1890	20,000.00
Davies (Julien T.) Barnard Window: St. Paul's		
Chapel	1913	1,000.00
Davies (Julien T.) Benson Window: St. Paul's Chapel	1906	600.00
DeLamar Fund, Income ofMedical School (old) Additions	1920	3,600.00
De Peyster (Mrs. Frederic J.) De Peyster Window: St. Paul's Chapel	1005	600.00
DeWitt (George G.) Barnard Window: St. Paul's	1905	600.00
Chapel	1905	500.00
Dodge (Marcellus Hartley)Furnishing Men's Faculty Club	1925	495.00
Dodge (Marcellus Hartley)Hartley Hall Building	1904-05	175,000.00
Dodge (Marcellus Hartley)South Court Fountains	1906-08	4,932.88
Dodge (William E.) Earl Hall	1900-02	164,950.82
Gift\$159,540.38		
Interest 5,410.44		
\$164,95 0. 82		
——————————————————————————————————————		
Donahue (Mrs. James P.)School of Dental and Oral Surgery,		
(New)	1926	55,745.15
Gift\$50,000.00		
Interest 5,745.15		
\$55,745.15		
\$33,743.13		

Name	Purpose	Date	A mount
Dryden (Forrest F.) Duriron Castings Co	1918	1,000.00	
	Chemical Engineering	1920	75.00
	\mathbf{E}		
Eddy (Jesse L.)	Medical School (old) Additions Optical Instruments	1918 1927	500.00 1800.00
	F		
n d (n dd n)	•		
Fayerweather (Daniel B.) Bequest	Fayerweather Hall Building Bequest\$346,319.73 Less Expenses 15,425.70	1891-1917	330,894.03
	Less Expenses 15,425.70 \$330,894.03		
Fish (Stuyvesant)	Fish Window: St. Paul's Chapel	1906	600.00
France-America Committee	Maison Francaise Equipment	1914	2,000.00
Frank (Dr. John) Estate of	School of Business Building	1923	2,589.64
	Bequest\$2,389.85 Interest		
P. W. (Paul Tu)	Maison Françoise Equipment	1913	100.00
Furnald (Francis P., Jr.) Leg-	Maison Francaise Equipment Furnald Hall Building	1912-14	350,000.00
acy		1/12 11	000,000.00
	G		
General Education Board	Medical School (new) Building Gift\$1,250,000.00 Interest49,732.57	1925-28	1,299,732.57
	\$1,299,732.57		
Caparal Optical Co	Optical Instruments	1920-27	2,020.00
Globe Optical Co	Optical Instruments	1920	250.00
Goldsmith (Byron B.) Estate of	: Goldsmith Library	1927	850.00
Gould (George I.)	.Toward Purchase of East Field	1909	100,000.00
Griscom (Acton)	.St. Paul's Chapel Furnishing	1924	30.00
	Н		
II ilt Manufacturing Co	Optical Instruments	1927	560.00
Hand (Mrs. Learned)	. Medical School (old) Additions	1917	50.00
Harkness (Edward S.)	. New Medical School Site Gift, 1923, assessed	1923	985,001.00
	valuation \$1,180,000		
	Less value of land		
	transferred as fol-		
	lows:		
	Neurologi- cal Insti-		
	tute\$120,000		
	New York		
	State		
	Psychi-		
	atric Hospital. 74,999		
	194,999		
	\$985,001		
			

Name	Purpose	Date	Amount
Harkness (Mrs. H. S.)	l. and Surgical Equipment, gside Heights Site al Laboratories\$522,600.86\$500.00667.47 s and 103,352.70	1929 1919 1901 1922	529,647.05 10,000.00 5,000.00 511,922.31
Havemeyer (Henry O.) and	104,520.17 \$418,080.69 Interest93,841.62 \$511,922.31		
	•	1896	414,206.65
Hawes (A. J.)		1919	100.00
Street Hepburn (A. Barton) Estate		1913	30,000.00
of	side Heights Site	1923-24 1893-96 1918	190,506.93 4,000.00 1,000.00
Estate of School of Beque	\$5,000.00 est	1920	5,581.40
Huntington (Archer M.)Medical	School (old) Additions	1919	1,000.00
	I		
	f Business Building	1919	3,255.00
James (Arthur Curtis) Medical James (D. Willis) Morning James (Dr. W. B.) Medical Jarvie (James N.) School o	side Heights Site School (old) Additions	1918 1892-94 1919	1,000.00 50,000.00 500.00
Gift	\$100,000.00 st\$5,000.00		100,000.00
	\$105,000.00		

Name	Purpose	Date	Amount
	. Medical School (old) Additions	1917	500.00
Jenkins (Mrs. Helen Hartley) Jenkins (Mrs. Helen Hartley)	. Hartley Hall Building	1904-05 1910-11	175,000.00 350,000.00
Jessup (Morris K.)	. Morningside Heights Site	1893	5,000.00
	. Model of Coal Mine	1923 1913	250.00 200.00
Jusserand (J. J.)	K	1713	200.00
Tr. (A. de C.) Ferensef		1927	500,000.00
	.Physics Building	1905-06	506,061.66
	Gifts \$500,000.00 Interest 6,061.66		
	\$506,061.66		
King (Hon. John A.) King (Willard V.)	. Morningside Heights Site	1892	1,000.00
	building)	1915-16	2,000.00
	(new)	1927	2,000.00
	Chapel	1906	300.00
Kingsland (Mrs. Geo. L.)	.Kingsland Window: St. Paul's Chapel	1906	300.00
	L		
Ladenberg (Mrs. Emily)	. Medical School (removing and re-		
(26)	building)	1915 1917	1,000.00 10.00
	. Medical School (old) Additions .School of Dental & Oral Surgery		
Langeloth (Jacob) Estate of	(new)	1929 1915	56.80 5,062.50
Dangeloth (Jacob) Dotate of	Bequest\$5,000.00		
	Interest		
	\$5,062.50		
Lawrence (Mrs. Benj. B.)	Barnard and Lawrence Windows:		0.0
	St. Paul's Chapel	1923	18,400.00
	Gift\$20,000.00 Transferred to		
	Chapel Furnishing		
	Fund		
	\$18,400.00		
Lawrence (Mrs. Benj. B.)	St. Paul's Chapel Furnishing	1923	3,727.00
	Balance of gift for Memorial Windows \$1,600.00		
	Interest\$2,456.53		
	Less trans-		
	fer to Chapel		
	Furnish-		
	ing Fund. 329.53		
	\$3,727.00		

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REPORT OF THE TREASURER

Name Purpose	Date	Amount
Lee (Mrs. Frederic S.) School of Dental & Oral Surgery (new) Gift \$5,000.00 Interest 366.11	1927	5,366.11
\$5,366.11		
Lengovitz (Emil G.) Engineering Apparatus Lewisohn (Adolph) School of Mines Building Livingston (Edward de Peyster, John Henry and Goodhue) Memorial Window, Livingston Hall	1919 1904-05	450.00 250,000.00 1,124.00
Low (A. A.)	1892-94 1892 1896-99	15,000.00 5,000.00 1,100,639.32
M		
McClelland (John)Pathological Laboratory: Medical School McLean (James)Medical School (old) Additions Mackay (Clarence H.)Maison Francaise Equipment Mackay (Clarence H.)Medical School (old) Additions Macy (Mr. and Mrs. V. Everit). Medical School (old) Additions Marling (A. E.)Medical School (old) Additions	1891 1918 1914 1918 1917-19 1919	19,136.94 1,000.00 1,000.00 12,000.00 6,000.00 1,000.00
McMillin (Emerson) School of Business Building Gift of 2,040 Shares of Common Stock of the American Light & Traction Co., the proceeds of which, together with interest and dividends, amounted to \$568,069.02.	1917-18	568,069.02
Mehler (Miss Elsa)	1917 1918 1892-95 1913	10.00 1,000.00 100,000.00 1,035.00
(new)	1927	2,622.92
Mosher (Eliza M.) Medical School (old) Additions. Mower (Sara E.) Estate of School of Business Building Bequest \$91,101.43 Less Expenses 2,220.34 88,881.09 Interest 21,344.95 \$110,226.04	1917 1920-21	500.00 110,226.04
Munsey (Frank A.)Toward Purchase of East Field	1910	50,000.00
N		
Nash (William A.)Medical School (old) Additions New Jersey Zinc CoHegeler Furnace New York Odontological Soci-	1918 1923	250.00 2,000.00
etyAnatomical Collections and Speci- mens	1926	8,000.00

Name	Purpose	Date	Amount
Nichols (William H.)Lal	•	1912	30,000.00
Notman (George) Me	1917	100.00	
Notman (Mrs. George)Me	dical School (old) Additions	1917	100.00
	O		
Ogden (David B.)Ogd		1906	600.00
Oliver Continuous Filter CoRot	= -	1919	1,000.00
Optometrical Club of Brooklyn. Optometrical Society of the City of New York Optometrical Society of the City of New York		1927 1927	1,500.00
Osborne (Mr. and Mrs. Wm. Church)		1918	1,750.00
Ottindorfer (Oswald)Mo	• •	1892	5,000.00
	P		
Palmer (Edgar)Me	dical School (old) Additions	1919	3,000.00
Parish (Henry)Mo		1893	5,000.00
Parsons (Mrs. Elsie Clews)Me		1918	100.00
Parsons (Mrs. Edgerton)Me Parsons (General William	dical School (old) Additions	1917	5.00
Barclay)	trait	1928	2,570.00
Charles)Org		1905-06	27,000.00
Pell (Howland) and othersPell Pendleton (Francis K.)Pen	dleton Window: St. Paul's	1906	600.00
Philosophy, Department of	hapel	1906	600.00
(Members)Aut Phoenix Legacy: IncomeObs		1923	100,00
	1928	35,748.90	
Pratt (Mrs. Chas. M.)Med	cs Buildingdical School (old) Additions	1917	500.00
Pulitzer (Joseph)Sch		1903-04	563,501.21
G	Gift of \$1,000,000 to establish		
	and endow a School of Jour- nalism, of which \$563,501.21		
	was expended in the con-		
	struction of the building, the		
	balance remaining in the		
	Pulitzer (Joseph) Fund for School of Journalism.		
	-		
	R		
Reid (D. G.)Med Rives (George L.)Bar		1918	1,000.00
	hapel	1906	600.00
Rives (George L.), Estate of Med	ebuilding)lical School (Removing and	1916	10,000.00
	ebuilding)	1918	25,000.00
(n	new)	1925	25.00
	ift\$1, 00 8,333.33	1925-28	1,051,828.80
Ir	terest 43,495.47		
	\$1,051,828.80		

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Name	Purpose	Date	Amount
Sands (B. Aymar)		2010	11111011111
Sands (B. Aymar)	Chapel	1914	500.00
Sands (Sarah A.) Estate of	.Sands Window: St. Paul's Chapel.	1906	600.00
Schermerhorn (F. Augustus).			
	Chapel	1913	1,000.00
Schermerhorn (F. Augustus)	.Faculty House	1922-23	306,965.37
Schermerhorn (F. Augustus),	. Faculty House	1922-23	300,903.37
	.Faculty House Equipment	1922-23	27,552.48
	Bequest \$304,442.77		
	Interest 30,075.08		
	\$334,517.85		
	\$334,317.83		
	Building \$306,965.37		
	Equipment 27,552.48		
	0224 545 05		
	\$334,517.85		
Schermerhorn (F Augustus)	Estate of		343,415.42
centimemorn (1. magastus)	Schermerhorn Hall		010,110.12
	Extension \$318,538.44		
	Schermerhorn Hall		
	(changes) 24,876.98		
	\$343,415.42		
	=======================================		
Schermerhorn (F. Augustus),			
Estate of	. Physics Building	1926	275,000.00
	Bequest \$262,993.25 Interest 12,006.75		
	\$275,000.00		
Schermerhorn (William C.)	.Schermerhorn Hall: Building	1896-99	458,133.18
	. Morningside Heights Site	1892	5,000.00
School of Dentistry Endow-			
	School of Dentistry Building	1919-21	26,000.00
School of Dentistry Endow-	.School of Dentistry Equipment	1921	5,584.92
	. Medical School (old) Additions	1917	25.00
Seligman (Isaac N.), Estate of		1920	3,384.00
	Bequest \$5,464.17		
	Van Am-		
	ringe Memorial\$1,554.32		
	Avery		
	Library 1,829.68		
	3,384.00		
	Balance (Gift Acct.) . \$2,080.17		
	Balance (Girt Acct.): \$2,000.17		
Shepard (F. J.)	. Medical School (old) Additions	1919	500.00
	. Morningside Heights Site	1892	5,000.00
	.Torchères: Library	1907	6,000.00
Sloane (Mr. and Mrs. Wm. D.)	.Sloane Hospital for Women (Al-	1012	200 262 44
	terations and additions)	1912	399,263.14

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Date 1927	A mount 57,800.00
\$57,800.00		
Smith (Mrs. Munroe)Memorial Tablet to the late Pro- fessor Munroe Smith	1927	1,840.00
Sorchan (Mrs. Victor)Medical School (old) Additions	1917	1,000.00
Standard Optical CoOptical Instruments	1920	60.00
Stephens (Mrs. W. B. and		
Daughter)Mineral Specimens (Du Fourcq	1001	200.00
collection) Stetson (Francis Lynde)Kent Hall Building	1921 19 0 5	300.00 10,000.00
Stewart (Lispenard)Lispenard Window: St. Paul's Chapel	1906	600.00
Stewart (Wm. Rhinelander)Rhinelander Window: St. Paul's	1900	000.00
Chapel	1906	600.00
Stokes (Olivia Egleston Phelps)	1910	20,000.00
Stokes (Olivia Egleston Phelps and Caroline Phelps)St. Paul's Chapel Construction	1904-06	250,000.00
Straight (Mrs. Willard D.)Medical School (old) Additions	1917	1,000.00
Straus (Oscar S.)Barnard Window: St. Paul's		-,
Chapel Sulzberger (Dr. Nathan)Laboratory Equipment: Have-	1906	500.00
meyer Hall	1918	600.00
Sutro (Mrs. Lionel)Medical School (old) Additions	1917	50.00
Т		
Thomas (Belle)Medical School (old) Additions	1917	25.00
	1917 1918	25.00 2,500.00
Thomas (Belle)Medical School (old) Additions		
Thomas (Belle)		
Thomas (Belle)		
Thomas (Belle)	1918	2,500.00
Thomas (Belle)	1918 1917-22	2,500.00 18,684.02
Thomas (Belle)	1918	2,500.00
Thomas (Belle)	1918 1917-22	2,500.00 18,684.02
Thomas (Belle)	1918 1917-22 1906	2,500.00 18,684.02 600.00
Thomas (Belle) Medical School (old) Additions Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Amringe Memorial Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment	1918 1917-22 1906	2,500.00 18,684.02 600.00 350,000.00
Thomas (Belle)	1918 1917-22 1906 1895 1920	2,500.00 18,684.02 600.00 350,000.00 7,500.00
Thomas (Belle)	1918 1917-22 1906 1895 1920 1892	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00
Thomas (Belle)	1918 1917-22 1906 1895 1920	2,500.00 18,684.02 600.00 350,000.00 7,500.00
Thomas (Belle)	1917-22 1906 1895 1920 1892 1910-14	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00
Thomas (Belle) Medical School (old) Additions Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Cortlandt Window: St. Paul's Chapel Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Columbia Stadium Site Various Donors Columbia Stadium Site Various Donors School of Dental and Oral Surgery, (New)	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00
Thomas (Belle) Medical School (old) Additions Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Amringe Memorial Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Casa Italiana, 437 W. 117th St Various Donors School of Dental and Oral Surgery, (New) Various Donors South Field	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 315,000.00 1,900.15 26,000.00 54,707.00
Thomas (Belle) Medical School (old) Additions Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Cortlandt Window: St. Paul's Chapel Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Columbia Stadium Site Various Donors Columbia Stadium Site Various Donors School of Dental and Oral Surgery, (New)	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00

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	lical Sch lical Sch lical Sch	ool ool ool usii	(ole (ole (ole ness	d) Add) Add) Add Buil	idi idi idi dir dir	tior tior tior ug	ıs ıs			1918 1918 1918 1918	:		1,000.00 1,000.00 2,500.00 1,000.00 1,116.28
Williams (Blair S.)Scho (r		ent 	al 8	k Or	\$: al:	Sur \$20	6.2 ger	8 = y		192	7		214.86
												\$18,43	4,572.78

GIFTS AND BEQUESTS RECEIVED DURING 1928-1929

A. GIFTS TO CAPITAL:

1. General Endowment:

Alumni Fund Committee: For the Permanent Alumni Fund	\$22,000,00	
From the Class of 1878 School of Mines, for the Col-	\$22,000.00	
umbia University Permanent Alumni Fund Estate of Annie P. Burgess, for the Burgess (Annie P.)	1,000.00	
Fund	375.00	
Estate of Amos F. Eno, for the Eno (Amos F.) Endowment Fund	462.09	
Estate of John S. Kennedy, for the Kennedy (John	Α.	
Stewart) Endowment Fund Estate of Robert B. Van Cortlandt, for the Van Cort-	1,406.25	
landt (Robert B.) Fund	12,230.25	
Wilson (W. A.) for the Columbia University Permanent Alumni Fund	300.00	
		\$37,773.59

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Special Endowments:	
Alumni Fund Committee:	
For the Revolving Fund for Athletic Activities from	
the following:	
Donovan (Colonel William J.) \$100.00	
Erskine (Professor John)	
Knapp (James R.)	
Macy (V. Everit)	
Prentis, Jr. (E. A.)	
Pupin (Professor Michael I.) 500.00	
Riker (Charles L.) 500.00	
	\$1,900.00
From Mrs. Robert J. Armstrong, for the "In Mem-	
oriam Fund''	1,000.00
From Frederic P. Benedict, for Loans to Students	45.00
From the late Dr. Herbert Louis Celler, for the Alumni	
War Bonus Fund	439.00
From the Class of 1912 P. & S., for the Class of 1912	
P. & S. Fund	500.00
From Aaron Coleman for the "In Memoriam Fund"	25.00
From Edmund A. Prentis, Jr. of the Class of 1906 for	
the School of Dental and Oral Surgery	500.00
Anonymous, to be added to the Smyth (David W.) Fund	10,000.00
Anonymous, for the School of Dental and Oral Surgery	
Endowment Fund	50,000.00
Anonymous, to be added to the Anonymous Fund for	
Physics and Physical Chemistry	36,765.00
Anonymous, for the School of Dental and Oral Surgery	
Endowment Fund	1,000.00
Baerwald (Paul) for the School of Dental and Oral Surgery	
Endowment Fund	250.00
Carpenter (Mrs. Clarence) to establish the Clarence	20,000,00
Carpenter Fund for Cancer Research	20,000.00
Class of 1904, College and Science, to establish the Class	15 000 00
of 1904 Scholarship Fund	15,000.00

Clyde, (Mrs. Ethel) to be added to the Clyde Loan Fund Cross (A. K.) Vision Training Fund, from the following:	535.00
Albright (William R.)\$5.00	
Anonymous	
Balson (Miss Aline L.) 1.00	
Bartlett (Mrs. Henry) 100.00	
Batters (Miss Katherine E.) 5.00	
Boatwright (Mrs. H. L.)	
Campbell (Miss Mary H.) 100.00	
Chatfield (Miss Eliza M.)	
Cheek (Mrs. Margaret)	
Crook (Mrs. Elizabeth L.). 4.00	
Fisching (Anna C.)	
Hancock (Mrs. Ruby C.)	
Lohrmann (Ernst)	
Montgomery (Lorena V.)	
Roberts (Mrs. Ella) 5.00	
Ruthven (Mrs. Louise) 9.00	
Thiston (Mrs. M. A.)	
Thornton (Mrs. Harriet P.) 2.00	
Watson (Thomas A.)	\$579.50
Curran (G.) for the School of Dental and Oral Surgery	
	100.00
Endowment Fund	100.00
Curtis, Carlton C. for the Curtis (Carlton C.) Fund	43.97
Emanuel Sisterhood, for the principal of the Gustav	11.65
Gottheil Lectureship Fund	14.65
Esberg (Henry) for the School of Dental and Oral Surgery	400.00
Endowment Fund	100.00
Estate of Kate Collins Brown for the Collins (Perry	
McDonough) Scholarship Fund	660.44
Estate of Mary B. Pell, for the Mary B. Pell Legacy	12,470.79
Estate of Cora N. Perkins, for the Castner (Hamilton	
Young) Fund	13.00
Fox (Richard H.) Prize Fund Committee, to be added to	
the Fox (Richard H.) Prize Fund	4.50
Gillett (Dr. Henry W.) for the School of Dental and Oral	
Surgery Endowment Fund	30,000.00
Goldschmidt (Dr. Samuel Anthony) to be added to the	
principal of the Goldschmidt (Samuel Anthony) Fel-	
lowship Fund	6,868.26
Hays (Mrs. Walter) for the Hays (Mrs. Walter) Fund	
for Medical Research	1,000.00
Heft (Professor Hattie L.) to be added to the Gies	
(William J.) Fellowship Fund	300.00
Hemingway (Dr. William Herbert) to constitute the	
Hemingway (Dr. William H.) Scholarship Fund	44,150.00
Hofer (Mrs. Jane A.) for the School of Dental and Oral	
Surgery Endowment Fund	50.00
Huber (Dr. Francis) to constitute the principal of the	
Huber (Joseph and Christina) Medical Library Fund	5,000.00
Huber (Dr. Francis) to be added to the principal of the	-,000,00
Jacobi Library Fund	1,000.00
J	2,000.00

Keyser (Samuel A.) for the School of Dental and Oral Surgery Endowment Fund	1,000.00 10,000.00 250,000.00 2,500.00 1,000.00 500.00 2,500.00 500.00 500.00 500.00 3,235.00 1,000.00	\$515,549.11
3. Buildings and Grounds: Anonymous, for the New Medical School Building Anonymous, to be used toward erecting a dormitory for the use of students in the Medical School Harkness (Edward S.) for the purchase of a site for a Residence Hall for the Medical School Prentis (Edmund A. Jr. '06) for flag poles and flags for Baker Field Spencer (Charles B. '07) for flag poles and flags for Baker Field. White (Lazarus W. '97) for flag poles and flags for Baker Field	175,000.00	\$786,250.00
B. GIFTS TO INCOME:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1. For General Purposes: Alumni Fund Committee, for current expenses of the University Anonymous, for the special needs of the University Estate of F. Augustus Schermerhorn, for the F. Augustus Schermerhorn Gift	2,000.00	\$ 5 4 2 ,795.5 6
2. For Specific Purposes: Adams (Edward D.) to defray the cost of printing the account of the opening of the Deutsches Haus Adler, Mrs. S. W. to be added to the Adler Fund in the Medical School	\$1,000.00 2,500.00 25.00	

Alumni Fund Committee:	
P. & S. Labrador Station	2.00
Support of the Law School	10.00
Needy Students Fund	5.00
Support of Columbiana, from Charles M. Lum '81 To be added to the Class of 1901 Student Loan Fund,	100.00
from the Class of 1901	5,000.00
For a scholarship in the School of Engineering, from	
Francis Blossom '91	500.00
Alumni of the College of Physicians and Surgeons, for	
the Huntington Memorial Library	30.00
American Academy of Ophthalmology and Oto-Laryn-	1,000.00
gology, for ophthalmic research	1,000.00
special printing gift	55.00
Anonymous, to be added to the Special Tuberculosis	33.00
Fund	14,500.00
Anonymous, to be added to the Adler Fund in the	,
Medical School	4,400.00
Anonymous, for Library Staff salaries	510.00
Anonymous, through the Wistar Institute, to establish	
the Anatomy Publication Fund	1,716.80
Anonymous, through Mr. George V. Denny, for the sup-	
port of the work of the Institute of Arts and Sciences.	25.00
Anonymous, to be added to the Dermatology, Special	
Research Fund	1,000.00
Anenymous, for the compensation of an assistant in ac-	150.00
counting in University Extension	130.00
Statistical Bureau	2,000.00
Anonymous, to be added to the applied Science Scholar-	2,000.00
ship Fund.	150.00
Anonymous, for the William J. Gies Fellowship	200.00
Anonymous, to establish the Ophthalmology-Special Re-	
search Fund	6,000.00
Anonymous, for scholarships in the School of Architecture	400.00
Anonymous, to establish Auditing Laboratory Prizes	100.00
Anonymous, to compensate an assistant in the Auditing	
Laboratory in the School of Business	150.00
Anonymous, for the Institute of Cancer Research	500.00
Anonymous, for lectures in a graduate course in the	
School of Medicine	4,500.00
Anonymous, for University Extension salaries	100.00
Anonymous, for the development of social service in the	
out-patient Psychiatry clinic	2,500.00
Anonymous, to be added to the income of the Gies (William J.) Fellowship Fund	4.48
Anonymous, for the Columbia University Orchestra	50.00
Association of the Alumni of the College of Physicians	
and Surgeons for the Medical School Library	207.43
Auchincloss, (Reginald) for the purchase of a micro-	
photometer for the Department of Chemistry	1,800.00
Ball (Dr. Louise C.) for the Gies (William J.) Fellowship	175.00
Baum (Mrs. David B.) to provide a special traveling	
scholarship	500.00
Borden Company (The) for research in Food Chemistry	18 000 00

Bureau of Social Hygiene Inc., for a criminalogical sur-		
vey by the Law School	25,000.00	
Bush (Professor Wendell T.) for Assistance and Supplies		
in the Department of Philosophy	5,434.04	
Bush (Professor Wendell T.) for Philosophy-Work in	25.00	
Religion	25.00	
nated students	1,200.00	
Carnegie Corporation, towards the maintenance of the	1,200.00	
School of Library Service 1928-29	25,000.00	
Carnegie Corporation, for scholarships in the Fine Arts.	6,400.00	
Casa Italiana maintenance, from the following:		
Angelo (Antonio D.)		
D. Antona (Attilio)		
Banca Commerciale Italiana 1,000.00		
Banco di Napoli		
Banco di Sicilia		
Campagna (Anthony A.)		
Candela (Rosario)		
Ciccarone (A.)		
Clemente (Gaetano) 500.00		
Donise (Giuseppe)		
Gerbino (L.)		
Giannini (Dr. A. H.)		
Gerli (Emanuel)		
Italy America Society		
Loggia Cara Italia		
Margarella (P.)		
Paterno (Charles V.)		
Paterno (Michael E.)		
Paterno (Joseph)		
Perera (Lionello)		
Pope (Gene)		
Portfolio (Almerindo) 500.00 Sessa (Joseph) 333.34		
Sessa (Joseph) 333.34 Smith (Miss Quincey D.) 100.00		
	\$18,416.01	
Cascades Operating Corporation, for assistance and		
equipment for the new Air Laboratory in the DeLamar		
Institute of Public Health	250.00	
Chaloner (John Armstrong) for the Chanler Historical		
Prize	600.00	
Chamberlain, (Joseph P.) for the Legislative Drafting	0.510.03	
Research Fund.	9,512.83	
Chamberlain (Joseph P.) to meet the cost of an investiga- tion of British Criminal Administration	30.00	
Chamberlain (Mrs. Kate G.) to be added to the Depart-	30.00	
mental Appropriation of the Institute of Cancer Re-		
search	50.00	
Chatillon (George) for School of Dental and Oral Surgery		
Expenses	50.00	
Chemical Foundation Inc., (The) for the Biological		
Chemistry Chemical Foundation Fund	20,000.00	
Chemical Foundation Inc., (The) for research work in	0.150.60	
Bacteriology	2,150.00	

Chemical Foundation Inc., (The) to meet the cost struction changes in the Department of Bi		
		16 110 71
City Company for the Pharmacology Prysidence		16,110.74
Ciba Company for the Pharmacology-Pyridene Fund Class of 1906, College and Science, to provide a scholar-		1,500.00
ship in Columbia College for the year 1929-30 Class of 1929 (B. S. School of Library Service) for the		420.00
Mary Louisa Sutliff Gift		155.00
versity Orchestra		20.00
the Queen Wilhelmina Professor Columbia University Club for fifteen Columb		4,001.80
versity Club Scholarships		3,000.00
Copper and Brass Research Association, to be a		
the Metals Research Fund		4,000.00
Corlite Corporation, for the salary of an assistan		
Civil Engineering Testing Laboratories		1,250.00
Council on Foreign Relations, for study of Germ		
nomic conditions		3,000.00
Crane (Mrs. W. Murray) in support of the work		
Institute of Cancer Research		500.00
Davis (Charles) to meet the cost of two special		
to be delivered before the Institute of A		
Sciences	• • • • • •	300.00
Deutsches Haus Maintenance, from the followin	g:	
Behrend, (F.)	\$10.00	
Boettenhausen (Theodore)	100.00	
Brickelmaier (G.)	150.00	
Durlach (Mrs. Milton I.)	20.00	
Eckart (Edmund)	25.00	
Eidlitz (Otto M.)	100.00	
Eihlein (Edgar J.)	100.00	
Fitger (August)	250.00	
Gerstendorfer (Albert)	25.00	
Gerstendorfer (Anna J. B.)	25.00	
Goldman (Henry)	250.00	
Graf (William)	25.00	
Gristede (D.)	200.00	
Guenther (Paul)	500.00	
Hamburg-American Line	1,000.00	
Heye (Carl F.)	25.00	
Hirschland (Dr. F. H.)	200.00	
Hochschild (H. W.)	50.00	
Janssen (H.)	100.00	
Kahn (Otto)	250.00	
Keller (Albert)	50.00	
Koehler (Hugo A.)	100.00	
Knapp (Arnold)	125.00	
Kress (Claude W.)	25.00	
Kubler (George A.)	100.00	
Kuttroff, Adolf	100.00	
Lafrenz (Ferdinand W.)	500.00	
Lagemann (C.)	100.00	
Levenger (Alfred)	50.00	
Lichtenstein (Alfred)	100.00	

Mayer (Bernhard) 50.00

Mertz (Mrs. A. H.)	0
Nachmann (L.) 100.0	0
Nissen (Mrs. Katherine Q.) 250.0	0
Oberlaender (G.) 100.0	0
Rossbach (Max J. H.)	0
Sandhagen (H.)	0
Schwartz (Mrs. Emma) 100.0	0
Seligman (Mrs. I. N.)	0
Sharp and Dohme 100.0	0
Stoehr (Max W.)	0
Thun (F.)	0
Vogelstein (Ludwig)	0
Von Bremen (Henry) 10.0	
Warburg (Felix)	
Warburg (Paul)	
Wester (Charles) 50.0	
Whitner (Marion)	
Wilckes (F.)	
Wollman (Henry) 10.0	
Wolfman (Henry)	
Dedge (M. Hartley) for the Adler gift for the Medi-	- \$7,310.00
Dodge (M. Hartley) for the Adler gift for the Medica	
School	
School Library	
Dressler (Oscar) for the purchase of German books	
Dunn (Gano) for the Gano Dunn scholarship	
Du Pont (E. I.) de Nemours and Company, Inc., to mee	
the stipend of the Du Pont fellowship in Chemistry.	
Fox, Miss Helen, for lantern slides for the Department	
University Extension	
Friedman (Ignatz) for the support of investigations i	n
Friedman (Ignatz) for the support of investigations i tuberculosis	n
	n
tuberculosis	250.00
tuberculosis	250.00 0
tuberculosis	250.00 0
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 0 0
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall. \$100.0 T. Ludlow Chrystie. 10.0 H. C. Friedman. 5.0 Roger Howson. 5.0	250.00 0 0 0
tuberculosis	250.00 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Enderick Coykendall. \$100.0 T. Ludlow Chrystie. 10.0 H. C. Friedman. 5.0 Roger Howson 5.0 F. P. Keppel. 5.0 Dr. Frederic S. Lee 5.0	250.00 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Erederick Coykendall. \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman. 5.0 Roger Howson. 5.0 F. P. Keppel. 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham. 5.0	250.00 0 0 0 0 0 0 0
tuberculosis. \$100.0 Friends of the Library, for Library equipment: \$100.0 T. Eudlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0	250.00 0 0 0 0 0 0 0 0 0
tuberculosis. \$100.0 Friends of the Library, for Library equipment: \$100.0 Frederick Coykendall. \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0	250.00 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie. 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0	250.00 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie. 10.0 H. C. Friedman. 5.0 Roger Howson. 5.0 F. P. Keppel. 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham. 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman. 5.0 David Eugene Smith. 100.0 Blair S. Williams. 100.0	250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0 Charles C. Williamson 5.0	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0 Charles C. Williamson 5.0	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0 Charles C. Williamson 5.0	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00 0 0 0 0 0 0 0 0 0 0 0 0
tuberculosis. \$100.0 Friends of the Library, for Library equipment: \$100.0 T. Ludlow Chrystie 10.0 H. C. Friedman 5.0 Roger Howson 5.0 F. P. Keppel 5.0 Dr. Frederic S. Lee 5.0 W. H. Meikleham 5.0 Robert H. Montgomery 5.0 Edwin R. A. Seligman 5.0 David Eugene Smith 100.0 Blair S. Williams 100.0 Linsley R. Williams 5.0 Charles C. Williamson 5.0 Professor Thomas D. Wood 5.0	250.00 250.00
tuberculosis.	250.00 250.00 250.00 250.00 300 300 3300.00 3300.00
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00 250.00 250.00 300 3,000.00 3,000.00
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00
tuberculosis. Friends of the Library, for Library equipment: Frederick Coykendall	250.00 250.00 250.00 250.00 300 300 300 300 4\$360.00 6 3,000.00 18,000.00 18,000.00 18,000.00

General Education Board, for the equipment of a Re-	
search Laboratory in Bio-physics	375.00
Goodhart (Howard L.) for the Dr. Charles Hendee	
Smith Expendable Fund (Diseases of Children)	1,000.00
Grace (Miss Louise N.) for the Institute of Public	
Health	5,000.00
Hays (Mrs. Walter) to be added to the income of the	
Hays (Mrs. Walter) Fund	250.00
Heide (Henry) for the purchase of German books for the	
Library	100.00
Hencken (Frederick) for the purchase of books for the	
Library	100.00
Hencken (A. C.) for the Adler gift for the Medical School	150.00
Hewitt (J. Robert) for the work of the Crocker Research	
Laboratory	1,000.00
Higgins (Eugene) Class of 1882, to be applied toward the	
cost of publishing "Studies of Post-War France"	1,000.00
Huber (Dr. Francis) to be added to the income of the	
Jacobi Library Fund	9.47
Huber (Dr. Francis) to be added to the income of the	
Huber (Joseph and Christina) Medical Library Fund	47.36
Hutchins (R. Grosvenor) for the Adler gift for the	
Medical School	250.00
International Committee for the Study of Infantile	
Paralysis, to be added to the Milbank Infantile	
Paralysis Fund	10,000.00
Jackson (Professor A. V. Williams) for the use of the	
University Extension Library	250.00
Jaffey (John) for the Department of Accounting, School	
of Business	20.00
Janssen (Henry) for the purchase of German books for	
the Library	100.00
Jenkins (Mrs. Helen Hartley) for the purchase of a	
manuscript for the Library	200.00
Jones (Alfred W.) for equipment for the Department of	
Chemical Engineering	50.00
Kahn (Otto H.) for the purchase of German books for	
the Library	100.00
Lee (Mrs. Frederic S.) for the current expenses of the	
Romanic Review	250.00
Levy (B. E.) for the purchase of an oscillograph (De-	500 50
partment of Psychology)	502.50
Loeb (James) for the purchase of books for the Library.	175.00
Low (William G.) Class of 1865, for the purchase of books	250.00
on maritime and international law for the Library	250.00
Marcus, (Bernard K.) and friends, for a special lecturer	5 000 00
in Anthropology	5,000.00
Fund in the Department of Pathology	3,500.00
Megrue (Stella Cooper) Estate of, for Kings Crown	500.00
Mitchell (Charles E.) for research work in the use of	300.00
moving pictures for teaching purposes	500.00
Montgomery (Professor Robert H.) for the support of	200.00
the work of the School of Business	2,250.00
Montgomery (Professor Robert H.) to be added to the	2,200.00
Montgomery Fund in the Library	1,325.00
Montgomery (Professor Robert H.) for the Auditing	_,
Laboratory of the School of Business	700.00

Morgan (Junius S.) for research work in the use of moving pictures for teaching purposes	500.00
National Research Council, to establish the Anatomy,	
Smith Pituitary Fund	4,408.49
New York Tuberculosis and Health Association, for the	1,100,17
salary of an instructor in the School of Dental and Oral	
Surgery	862.40
New York Milk Conference Board, for research work in	002110
the DeLamar Institute of Public Health	8,562.35
Oberlaender (G.) for the purchase of German books for	0,002.00
the Library	100.00
Parsons (Mrs. Elsie Clews) for research work in An-	100.00
thropology	3,447.06
Paterno (Charles V.) for Casa Italiana Library salaries.	300.00
Pennsylvania Club of 1928, for three scholarships in the	300.00
Summer Session of 1928	150.00
	150.00
Pfeiffer (G. A.) for the American Manufacturers of Toilet	7 500 00
Articles Fund	7,500.00
Putnam (Albert W.) for the Adler gift for the Medical	
School	100.00
Ramsey (Mrs. Robert) for tuition fees in University Ex-	
tension	414.00
Reussner (Miss Ella) for the purchase of German books	
for the Library	200.00
Rockefeller Foundation, for the study of Familial Law	15,820.91
Rockefeller Foundation, for the fund for Medical My-	
cology	6,500.00
Rockefeller (Laura Spelman) Memorial, for Social	
Science Research	59,727.06
Royal Baking Powder Company, for research work in	
the Department of Chemistry	1,000.00
Sackett (Henry W.) for graduate scholarships in the	
School of Journalism	600.00
Sargent (Homer E.) for research in the Social Sciences	
(Anthropology)	500.00
Seligman (Professor Edwin R. A.) to be added to the in-	
come of the Social and Political Ethics Professorship	
Fund	873.53
Smith (Professor J. Russell) to be added to the special	
fund in Economic Geography	1,916.68
Social Science Research Council, for the study of Negro	
Migration	9,660.00
Social Science Research Council, for the study of Labor	
Law Administration	7,380.42
Social Science Research Council, for investigation of	
methods of Formal Accusations in Criminal Prose-	
cutions	9,700.00
Social Science Research Council, for the Legal and	
Economic Study of the recent development of Busi-	
ness Corporations	10,146.10
Social Science Research Council, for the study of Racial	•
and Social Differences in Mental Ability	1,421.60
Speyer (Mrs. Leonora) for the purchase of German	_,
books	100.00
Spingarn (Miss Amy) for lantern slides in landscape	
architecture	25.00
Stern (Carl W.) to be added to the Rosenthal Fund in	
the Department of Pathology	100.00

Stevens Institute of Technology, for the McKim Fellow- ship	200.00
Stiefel (Carl) for the purchase of German Books for the	
Library	100.00
Stroock (Bertram A.) for the Louis S. Stroock Scholarship	125.00
Stroock (Sylvan I.) for the Louis S. Stroock Scholarship.	125.00
Students of the 1928 Summer Session, to be added to the	
Summer Session Entertainment Fund	1,327.20
Thalman (Paul) for the support of the Orchestral work	
in the Department of Music	1,500.00
Thun, (Fred) for the purchase of German books for the	
Library	100.00
Vought (Miss Sabra W.) to be added to the Mary	50.00
Louisa Sutliff Fund for the School of Library Service.	50.00
Walker-Gordon Laboratory Company, for research in	5 000 00
food chemistry and nutrition	5,000.00
Wanger (Mr. & Mrs. Walter F.) for research work in the Department of Pharmacology	700.00
Warburg (Paul M.) for research work in the use of	700.00
moving pictures for teaching purposes	1,000.00
Wawepex Society, for the John D. Jones scholarship	200.00
Weihman (Miss Martha E.) for the support of the	200.00
Brander Matthews Dramatic Museum	5.00
White (Miss Amelia E.) for research work in Anthro-	0.00
pology	30.00
White (Granville M.) for the Huntington Memorial	
Library Fund	50.00
Williams (Stephen G.) toward the support of the Colum-	
biana Collection	5.00
Wineburgh (A.) for the Rosenthal Fund for medical	
research	250.00
Wolffram (Mrs. Amalie) for the purchase of German	
books for the Library	100.00
Wood (Willis D.) to be added to the Bacteriology-Wood	
Fund	2,500.00
-	

\$488,308.98

\$2,370,677.24

C. OTHER GIFTS:

Alumni of the University in London. Portrait of King George II.

Class of 1893. Tablet to indicate their gift made in 1918 of the University bell in the Chapel.

De Yoanna (Dr. A.) Important collection of books for the library of the Casa Italiana. Griscom (Reverend Acton). Nine autograph letters written by Robert Southey referring to his volume of Joan of Arc.

Griscom (Reverend Acton)

Haines (Dallas W.)

Letter book containing important correspondence Hazen (Professor Charles D.) on the Panama Canal question.

La Dow (Stanley V.)

Jaffray (Mrs. Robert). Manuscript journal of F. D. Griffin for the years 1828, 1829 and 1830 recording his travels in Europe.

Orsenigo Company, Special bookstands for use in book exhibit at the Casa Italiana.

Rice (Miss Lita Angelica). The following articles for the Maison Française

1 Parchment in Old French dated 1621.

A Gambetta medal, 1891.

A metal finger-ring with Arms of Alsace and Lorraine.

Tuthill (William Burnet). Collection of architectural photographs for the Ware Memorial Library.

Frederick A. Goetze,

Treasurer.

New York, June 30, 1929

FINANCIAL REPORT OF BARNARD COLLEGE 1928–1929

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BARNARD COLLEGE—BALANCE SHEET—JUNE 30, 1929

LIABILITIES AND SURPLUS Endowment and Special Funds: Endowment Funds, Unrestricted as to Income	Stokes Legacy downent and Special Funds	College Equipment Fund 194,852.81 Special Funds Invested in New Construction	Advance Receipts: Students' Room Deposits, etc. 1929-1930	Total Current Liabilities \$44.539.78 Surplus Account \$21.326.20 Net Income of Hewitt Hall, in Suspense 49.140.38 Excess of Current Assets and Deferred	Charges over Current Liabilities 70,466.58 Total Current Liabilities and Surplus
Endowment and Special Fund Assets: Investment Securities \$4,709,314.95 Cash Awaiting Investment: United States Trust Company Capital Account \$90,959.10 Gibbes Account \$61.00 Gibbes Account and Special Fund Assets \$4,800,335.05 Special	Plant Assets: S1,165,000.00 Grounds 2,348,774.65 Buildings 2,348,774.65 Equipment 194,852.81 Total Plant Assets 2,36,627.46 Cullege Grounds College Buildings	91.38 Sp 00.00 00.00 Curr 00.00 \$102,091.38 UI	Accounts Receivable: Advance College Entrance Examination Board. \$4,907.52 etc. Undents*Loan Committee. 3,000.00 Students*Loan Committee. Students*Loan Committee. 86.00 7,993.52 and Deferred Charges: and and and Designated Purposes : \$530.31 Wood Inventories—Food and Sup- 4ust	1,777.82 2,008.80 604.44 4,921.46	Total Current Assets and Deferred Charges 115,006,36 Total S8,623,068,87

BARNARD COLLEGE—INCOME AND EXPENSE ACCOUNT—GENERAL FUNDS

FOR THE YEAR ENDING JUNE 30, 1929

4 C 4 M 0 M 1	\$762,414.06
\$454,827.04 260,254.47 20,836.74 11,654.83 12,700.00	ses for Main
\$\$85,572.71 Educational Administration and Instruction \$454,827.04 170,803.38 Buildings and Grounds Maintenance . 200,254.47 350.00 Library 25,373.35 Business Administration . 11,654.83 Annuities . 12,700.00 Loss on Operation of Lunch Room . 2,140.08	Total Expenses. Balance, being Excess of Income over Expenses for Maintenance for Fiscal Year ended June 30, 1929.
INCOME FROM ALL SOURCES \$585,572.71 From Endowments	\$782,090.44

BARNARD COLLEGE

PRINCIPAL OF SPECIAL FUNDS, JUNE 30, 1929

A. For General Endowment

ANDERSON (MRS. ELIZABETH MILBANK) FUND: Legacy from the estate of Mrs. E. M. Anderson. Established 1922	\$40,715.13
BROWN (DELPHINE) FUND: Legacy from the estate of the late Miss Delphine Brown. Until otherwise ordered by the Board of Trustees, the income of the fund is to be applied to the general expenses of the College. Established 1929	52,002.59
BURGESS (ANNIE P.) FUND: Legacy from the estate of the late Mrs. Annie P. Burgess. Established 1913. (See Burgess Fund under Section C—"For Construction and Equipment of Buildings.")	375.00
CARPENTER (HENRIETTA) FUND: Gift of General H. W. Carpentier, in memory of his mother, toward the Endowment Fund of Barnard College. The income of the fund is to be used for the payment of an annuity. Established 1898, 1900, 1911, 1913, 1914, and 1915	426,039.20
CARPENTIER (H. W.) ENDOWMENT FUND: Legacy from the estate of General H. W. Carpentier. Established 1919.	1,366,736.87
CHOATE (MRS. JOSEPH H.) ENDOWMENT FUND: Gift of Mrs. Joseph H. Choate for endowment. Established 1918	38,498.36
FISKE FOUNDERSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, in memory of Mr. Josiah M. Fiske. The income of the fund to be applied to the running expenses of the College	5,444.80
FISKE HALL FUND: Legacy from the estate of the late Mrs. Martha T. Fiske-Collord, the income of which is to be applied to the care, maintenance, and improvement of Fiske Hall. Established 1910	500,582.81
GEER FUND: A memorial to Helen Hartley Jenkins Geer made by the Class of 1915. Established 1020	5,391.62
GENERAL ENDOWMENT FUND:	504,309.19
GIBBES FUND: Legacy from the estate of the late Emily O. Gibbes. The income of the fund is paid for life to Edwina M. Post. Established 1908	126,797.50
HARRIMAN FUND: Gift of Mrs. E. H. Harriman to establish a fund, the income therefrom to be used for physical education and development, or to meet the deficit in running expenses. Established 1914	104,968.63
HERRMAN FOUNDERSHIP FUND: Gift of the late Mrs. Esther Herrman. The income of the fund is to be applied to the general needs of the College	4,928.60
MUNN (ANNE ELDER) MEMORIAL FUND: Gift of Mrs. I. Sheldon Tilney in memory of her mother. The income is to be used at the discretion of the Trustees. Established 1918.	7,346.15

ROCKEFELLER (JOHN D.) ENDOWMENT FUND: Gift of Mr. John D. Rockefeller toward the permanent endowment of Barnard College. Established 1901	239,301.58
SAGE (RUSSELL) MEMORIAL FUND: Legacy from the estate of Mrs. Russell Sage. Established 1920. (See Russell Sage Memorial Fund under Section C—"For Construction and Equipment of Buildings")	51,836.38
SANDERS (ELEANOR BUTLER) FOUNDERSHIP FUND: Legacy from the estate of the late Mrs. Henry M. Sanders. The income of the fund is used for the current needs of the College. Established 1908	4,877.42
SMITH (ANNA E.) FUND: Legacy from the estate of Anna E. Smith. Established 1916	10,050.62
STRAIGHT FUND: Gift of Mrs. Willard Straight. Established 1920	20,751.00
STOKES (OLIVIA E. P.) ENDOWMENT FUND: Legacy from the estate of the late Miss Olivia E. P. Stokes. The income of the fund is to be applied to the uses and purposes of the College. Established 1929	380,053.28
TILLOTSON (EMMA A.) ENDOWMENT FUND: Legacy from the estate of Emma A. Tillotson. Established 1910	
WOERISHOFFER FUND: Gift of Mrs. Charles Woerishoffer for endowment. Established 1913, 1917	9,777.70
_	
- \$	3.004.583.56
\$ B. For Designated Purposes	3,904,583.56
	\$ 997.50
B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Miss Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924. ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage	\$ 997.50
B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Miss Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924. ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925	
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B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Miss Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924. ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND:	\$ 997.50 4,732.50
B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Miss Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924. ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND: Gift of Mrs. James Herman Aldrich. Established 1916	\$ 997.50 4,732.50 1,004.80
B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Miss Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924. ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND: Gift of Mrs. James Herman Aldrich. Established 1916 ALUMNAE SCHOLARSHIP FUND: Gift of the Class of 1912 the income of which is to be used for scholarships. Established 1923 BALDWIN (JANE) MEMORIAL FUND: Gift of friends of the late Jane Baldwin, daughter of Professor Charles Sears Baldwin of Barnard College. The annual income of this fund is to be used for the purchase of books for the library in the field of medieval literature, these books to be inscribed as having been	\$ 997.50 4,732.50 1,004.80 3,015.63

BARNARD SCHOOL SCHOLARSHIP FUND: Gift of the alumnae of the Barnard School for girls. Established 1916 .	4,019.20
BENNETT (EDNA HENRY) MEMORIAL SCHOLARSHIP FUND: Gift of friends of the late Mrs. Edna Henry Bennett. The income of the fund is to be used to aid such Barnard students as the Department of Zoölogy may recommend in carrying on their studies at the Marine Biological Laboratory at Woods Hole, Massachusetts. Established toor.	* 640.25
Established 1927	1,640.35
BOGERT (ANNA SHIPPEN YOUNG) SCHOLARSHIP FUND: Legacy from the estate of Mrs. Annie P. Burgess. The annual income is to defray the tuition and expenses of a worthy pupil who is unable to pay her own expenses. Established 1913	4,739.64
BOGERT (CHARLES E.) SCHOLARSHIP FUND: Legacy from the estate of Mrs. Annie P. Burgess. The annual income is to defray the tuition and expenses of a worthy pupil who is unable to pay her own expenses. Established 1913	3,699.30
BREARLEY SCHOOL SCHOLARSHIP FUND:	
Gift of pupils of the Brearley School for a scholarship to be awarded annually to a student who deserves assistance. Established 1899.	3,000.00
BRENNER (MARTHA ORNSTEIN) SCHOLARSHIP FUND: Gift in memory of Martha Ornstein Brenner, Class of 1899, by her friends. Established 1915	3.757.50
BROOKS (ARTHUR) MEMORIAL FUND: Gift of Miss Olivia E. Phelps Stokes as a memorial to the late Reverend Arthur Brooks, D.D., Rector of the Church of the Incarnation, and Chairman of the Board of Trustees of Barnard College during the first six years of the existence of the College. The income of the fund is to aid needy and deserving students of the College. Established 1897	4,779.67
CARPENTIER SCHOLARSHIP FUND: Legacy from the estate of General H. W. Carpentier for scholarships. Established 1919	213,947.25
CHISHOLM (ELIZA TAYLOR) MEMORIAL SCHOLARSHIP FUND: Gift of the Alumnae Association of Miss Chisholm's School for a scholarship, to be awarded annually by the Committee on Scholarships of the Faculty to a student in need of assistance, said Alumnae Association reserving the privilege of precedence for such candidates as they may recommend. Established 1901	1,556.75
CLARK (THOMAS F.) STUDENTS LOAN FUND: Legacy from the estate of Mrs. Fanny Foster Clark. The income of the fund is to be loaned to needy students. Established 1928	100,000.00
CLARKSON (JENNIE B.) SCHOLARSHIP FUND: Gift of the late Mrs. W. R. Clarkson for a scholarship to be awarded annually to a student who deserves assistance. Established 1898.	3,026.00
COE (MRS. HENRY CLARKE) SCHOLARSHIP FUND: Gift of the National Society of New England Women for a scholarship to be awarded on the nomination of the Chairman of the Scholarship Committee of the above society, to a student from New England	
or of New England parentage. Established 1904	3,765.00

1896 LIBRARY FUND:	
Gift of the Class of 1896 of Barnard College on the thirtieth anniversary of their graduation. The income of the fund is to be used for the purchase of books for the library. Established 1926	600.00
ENGLISH SCHOLARSHIP FUND: An anonymous gift. Established 1920	5,000.00
FISKE SCHOLARSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, the income of which is to be placed at the disposal of the Dean of Barnard College. Established 1895	5,413.00
FISKE (MARTHA T.) SCHOLARSHIP FUND: Gift of Miss Anna E. Smith for a non-resident scholarship in memory of Mrs. Martha T. Fiske-Collord. Established 1911	2,914.96
GALWAY FUND: Gift of an anonymous donor for a scholarship. Established 1912	2,453.33
GOLDFRANK (IRMA ALEXANDER) FUND: Gifts of friends of Mrs. Irma Alexander Goldfrank, the income of which is to help deserving students in time of special need. Established 1919	2,121.30
GRAHAM SCHOOL SCHOLARSHIP FUND: Gift of the Alumnae Association of the Graham School. The income of the fund is to be applied to the tuition of a student. Established 1907	3,220.00
HEALTH FUND: Gift from an anonymous donor to promote the physical health of the students and officers of the College. Established 1917	6,021.49
HERRMAN BOTANICAL PRIZE FUND: Gift of the late Mrs. Esther Herrman, for a prize to be awarded annually to the most proficient student in botany	1,091.95
HERTZOG (EMMA) SCHOLARSHIP FUND: Gift to establish a scholarship in memory of Miss Emma Hertzog, who for a long period of years was prominently identified with the intellectual life of Yonkers. The income is awarded annually to a graduate of the Yonkers High School. Established 1904	3,003.50
JOLINE (MARY E. LARKIN) MUSIC FUND: Legacy from the estate of Mrs. Mary E. Larkin Joline. The income of the fund is to be used for the maintenance and preservation of the musical instruments given to Barnard College by Mrs. Joline, and to establish a scholarship for a student of music. Established	
1927	10,000.00
JOLINE (MARY E. LARKIN) PROFESSORSHIP FUND: Legacy from the estate of Mrs. Mary E. Larkin Joline. The income of the fund is to be used for the maintenance of a professorship of music and the musical arts. Established 1927	100,390.00
KAUFMANN (JESSIE) SCHOLARSHIP FUND: Gift of Mr. Julius Kaufmann to establish a scholarship in memory of his daughter, Jessie Kaufmann. The annual income of the fund is awarded on the merits of the entrance examinations to a student who, after careful investigation, is found to have no relative able	
to assist her financially. Established 1902	4,013.75

1,212.63

166.730.11

lish composition. Established 1922

PULITZER (LUCILLE) SCHOLARSHIP FUND:

Established 1899 and 1903, 1915 and 1916

Gift of the late Mr. Joseph Pulitzer in memory of his daughter, Lucille Pulitzer. The income of the fund is to be used for scholarships.

REED (CAROLINE GALLUP) PRIZE FUND; Gift of Mrs. William Barclay Parsons. Established 1916	1,004.80
SALARY INCREASE FUND: Gift of the Class of 1903, the income of which is to be used to increase salaries. Established 1928	6,100.00
SANDERS (HENRY M.) FUND: Legacy from the estate of Rev. Henry M. Sanders to establish a scholar- ship to be known as and called the Eleanor Butler Sanders Scholar- ship. Established 1922	10,002.63
SCHOLARSHIP FUND: Gift of friends of Barnard College. The income of the fund is applied toward helping deserving students through college. Established 1901	9,698.75
SHAW FUND: A memorial to Anna Howard Shaw. The income is applied towards the expenses of the Department of Government. Established 1920	6,626.12
SMITH (EMILY JAMES) SCHOLARSHIP FUND: Gift of Miss Emily H. Bourne in honor of Miss Smith, Dean of Barnard College. The income of the fund is awarded in conference with the founder. Established 1899	2,971.89
SMITH (GEORGE W.) SCHOLARSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, in memory of Mr. George W. Smith, a Trustee of Barnard College. The income of the fund is placed at the disposal of the Dean of Barnard College. Established 1906	4,688.69
SPERANZA (CARLO L.) PRIZE FUND: Gift from an anonymous donor for the founding of a prize in memory of Professor Carlo Leonardo Speranza, to be awarded annually to a student in Barnard College for excellence in Italian. Established	1,000.00
TALCOTT (JAMES) FUND: Gift of Mr. James Talcott, to found a Professorship of Religious Instruction. Established 1915	99,705.15
TATLOCK PRIZE FUND: Gift in memory of Jean Willard Tatlock, Class of 1895, by her friends, to found a prize to be awarded annually to the undergraduate student most proficient in Latin. Established 1917.	1,291.11
TILLOTSON (EMMA A.) SCHOLARSHIP FUND: Legacy from the estate of Emma A. Tillotson. Established 1910	3,721.84
VELTIN SCHOOL SCHOLARSHIP FUND: Gift of the alumnae of Mile Veltin's School. Established 1905	2,739.23
VON WAHL PRIZE FUND: Gift of friends of Constance von Wahl, 1912, to found a prize to be awarded annually to a senior who has rendered the highest type of service to the College. Established 1915	1,223.81
WEED (ELLA) SCHOLARSHIP FUND: Gift of the pupils of Miss Anne Browne's School, in memory of Miss Ella Weed, who was Chairman of the Academic Committee of the Board of Trustees of Barnard College during the first five years of its	
existence. Established 1807	3,351.72

WHITMAN MEMORIAL FUND: Gift of Mr. Malcolm Whitman, in memory of his wife, Janet McCook Whitman, a former student and graduate of Barnard College. The income of the fund is to be used towards the support of a Chair of Philosophy. Established 1920	5,515.69
ZIESER (GERALDINE VOIT) MEMORIAL FUND: Gift of Mr. and Mrs. Julius H. Zieser in memory of their daughter, Geraldine Voit Zieser, Class of 1930. The income of the fund is to be used to purchase books for the Italian courses of the College.	
Established 1929	1,025.00
	\$895,751.49
C. For Construction and Equipment of Buildings	
BURGESS (ANNIE P.) FUND: Legacy from the estate of Mrs. Annie P. Burgess. The principal of this fund was invested in Hewitt Hall 1924-1925. Established 1913.	\$66,363.64
GIBBES FUND: Legacy from the estate of the late Emily O. Gibbes. The principal of this fund was invested in Hewitt Hall 1924-1925. Established 1908	223,193.44
KENNEDY (JOHN STEWART) FUND: Legacy from the estate of the late John Stewart Kennedy. The principal of this fund was invested in Hewitt Hall 1924–1925. Established 1910	47,683.24
SAGE (RUSSELL) MEMORIAL FUND: Legacy from the estate of Mrs. Russell Sage. The principal of this fund was invested in Hewitt Hall 1924-1925. Established 1920.	
	\$843,399.27
TAX VALUATION OF BARNARD COLLEGE PROPERTY FOR THE YEAR 1928-1929	•
Lot No. 1, Block No. 1992, 119th-120th Sts. and Claremont Ave. and B'way	7
Land	
Total	\$900,000.00
Lot No. 1, Block No. 1989, 116th-119th Sts. and Claremont Ave. and B'way Land	\$1,850,000.00
Total	\$3,100,000.00
Lot No. 27, Block 1989 Land (Garden)	

FINANCIAL REPORT OF THE COLLEGE OF PHARMACY 1928-1929



COLLEGE OF PHARMACY—INCOME AND EXPENSE ACCOUNT—1928–1929

### DISBURSEMENTS Educational Administration \$123,550.34 Business Administration 12,870.37 Building Maintenance 21,591.93 Student Activities 6,017.35 Library 1,116,60 Educational Supplies 18,125,30	\$1,211.50 6,028.08 6,028.08 1,500.00 1,063.15 267.38	\$6,697.95 6,228.23 14,831.25	1929 50,076.11 \$272,715.63
<u>.</u>	\$272,715.63 Prizes and Scholarships Annuity Insurance College Publication Refund of Fees	Centennial Celebration Publication of History Investment of Surplus	batance June 30, 1929

COLLEGE OF PHARMACY—BALANCE SHEET—JUNE 30, 1929

ASSETS		LIABILITIES
Real Estate:		Plant Fellowship
Land	\$150,000.00	Seabury Fellowship 7,345.57
Building.	350,000.00	36
Equipment:	\$500,000.00	Students Loan Fund
Library	\$50,000.00	Dohme Prize Fund
Museum and Herbarium.	20,000.00	Olshansky Medal Fund
Furniture and Fixtures	71,378.00	Hostmann Memorial Fund
Apparatus and Chemicals:		Investment Fund
Materia Medica	30,703.97	Alumni Prize Fund
Pharmacy	18,362.08	Depreciation
Chemistry	32,459.15	Excess of Assets over Liabilities 707,479.31
Permanent Centennial Exhibit	2,000.00	
1	\$224,903.20	\$868,446.95
Invested Funds: Bonds.	\$78,600.00	
Savings Banks		
Cash:	\$93,407.04	
General Funds	\$50,076.11	
	\$50,076.11	
	\$868,446.95	

FINANCIAL REPORT OF TEACHERS COLLEGE 1928–1929

TEACHERS COLLEGE

DEBIT

Endowment Assets Investments Consolidated, Bonds, Stocks, and Mortgages . \$2,635,458.09 Due from Plant	53
Invested Separately: Lincoln School Endowment: Bonds, Stocks and Mortgages \$995,022.85 Cash Awaiting Investment 4,193.90 \$999,216	.75
Total Endowment Assets	
Dormitory and Dining Hall Plant Assets: Land, Buildings, and Equipment 2,449,577	
Total Plant Assets	\$10,594,281.40
Cash on Deposit and on Hand \$101,521 Call Loans, Speyer and Co \$575,000.00 Less Plant Fund Investment (see	.01
above)	.10
Investments of Teachers Retirement Fund 80,738	.75
Parents Publishing Association Stock 100,110	.00
Advances from Officers Emergency Fund 3,384	.50
Advances for Travel and Expenses 8,023	.00
Accounts Receivable	.41
Bureau of Publications, Net Assets Other than Cash . 112,657	.63
Inventories of Dining Hall Food and Supplies 12,221	
Deferred Charges to Expense	
Student Loans	
Deficit—International Institute 816	
Dormitories Deficit	.93
Total Current Assets and Deficits	\$1,156,624.72
TOTAL—BALANCE SHEET DEBITS	\$16,722,158,40

BALANCE SHEET, JUNE 30, 1929

CREDIT

ENDOWMENT FUNDS Funds Invested as a Whole: General Endowment \$3,020,895.60 Restricted Endowment Funds	\$3,972,035-53	
Funds Invested Separately: Lincoln School Endowment Fund . 1,000,000.00 Less Loss on Investments 783.25	999,216.75	
Total Endowment Funds		\$4,971,252.28
PLANT FUNDS AND LIABILITIES Educational Plant Funds and Liabilities: Gifts and Accumulations invested in Educational Plant \$8,044,703.64 Due to Endowment	\$8,144,703.64	
Dormitory and Dining Hall Funds and Liabilities: Accumulations Invested in Dormitories	2,449.577.76	
Total Plant Funds and Liabilities CURRENT FUNDS AND LIABILITIES Current Liabilities, Prepayments and Deposits Teachers Retirement Fund Parents Publishing Association Fund Student Loan Fund Mortgage Reserve Fund Funds for Designated Purposes Unexpended Income from Restricted Endowment Dining Hall Equipment Reserve Fund Reserve for Library Rental Collection Officers Emergency Fund Income Credits 1929–30 Reserve for 1929–30 Budget Bureau of Publications Surplus Teachers College Surplus Horace Mann Boys' School Surplus Lincoln School Surplus	\$138,929.39 86,455.71 100,110.00 123,628.77 102,157.10 153,040.72 14,351.66 15,775.20 146.87 2,832.57 956.00 68,000.00 156,682.75 183,065.39 8,664.64 1,827.95	\$10,594,281.40
Total Current Funds and Liabilities		\$ 1,156,624.72
TOTAL—BALANCE SHEET CREDITS		\$16,722,158.40

CONDENSED STATEMENT OF RECEIPTS AND **EXPENDITURES**

1928-1929

	Receipts 1928–1929	Expenditures 1928-1929	Surplus	Deficit
Teachers College	\$1,796,008.11	\$1,698,980.35	\$97,027.76	
I. International Institute Child Development Insti-	124,056.50	124,056.50		
tute	99,029.06	99,029.06		
Research	101,512.44	101,512.44		
mentation	31,939.16	31,939.16		
I. Horace Mann School	269,709.92	269,709.92		
2. Horace Mann Boys' School	172,180.35	166,629.68	5,550.67	
3. Lincoln School	356,901.47	349,170.91	7,730.56	
Bureau of Publications	275,127.71	226,983.28	48,144.43	
Residence Halls	454,752.36	472,336.57		\$17,584.21
Dining Halls	504,663.74	498,858.45	5,805.29	
	\$4,185,880.82	\$4,039,206.32		

GIFTS, GRANTS, AND BEQUESTS, 1928-1929

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Endowment		
General Endowment-Mr. Newbold Morris	\$ 1,000,00	
Welfare-The Agnes Russell Fund	3,000.00	
Horace Mann Boys' School Prize-Mr. Julius Prince	500.00	\$ 4,500.00
PLANT		
Lincoln School Building Fund-(Various Contributors)	\$ 9,280.00	
Russell Hall Fund	10.00	\$ 9,290.00
CURRENT PURPOSES		
College		
Service Bureau for Classical Teachers		
American Classical League	4,000.00	
Coatesville Curriculum Program		
Coatesville Public Schools	1,300.00	
Curriculum Research		
Board of Education, Cumberland, Allegheny Co.,		
Maryland	2,500.00	
Board of Education, Montgomery County, Maryland	1,000.00	
Dean's Fund for Emergencies		
Mr. V. Everit Macy	500.00	
Mr. James Speyer	1,000.00	
Trustces	140.00	
Portrait Fund Balance	8.00	
Kindergarten Education Fund		
Ethical Culture School	600.00	
Instruction in Scouting		
Mr. Mortimer L. Schiff	2,000.00	
Helen Hartley Jenkins Scholarship	250.00	
Fund for Bust		
Mr. Dunlevy Milbank	500.00	
Welfare—Agnes Russell Fund	150.00	
Entertainment Fund	•	
Miss Mercy Jane Hayes	1,000.00	
Salaries Remitted	320.00	
Practical Arts Research		
International Magazine Company	900.00	
Fund Subject to Dean's Direction		
Dr. Theodore H. Eaton	100.00	
Normal School Education		
Carnegie Corporation	10,000.00	
Research Divisions		
International Institute		
International Education Board	85,220.41	
Foreign Student Fund		
Mr. V. Everit Macy and Estate of Edith Carpenter		
Macy	20,000.00	
Geneva Scholarships for 1928		
Mrs. Joseph R. Swan	2,000.00	
Geneva Educational Conference		
Mr. V. Everit Macy	6,000.00	
Character Education Inquiry		
Institute of Social and Religious Research	27,500.00	
Vocational Guidance Study		
Commonwealth Fund	9.787.50	
Theory and Practice of Measurement of Intellect and		
Capacity—Carnegie Corporation, For 1928-29	20,000.00	
For 1929–30	9,000.00	

Psychology of Learning International Auxiliary Language Association in U. S.	
Inc	5,500.00
Carnegie Corporation	2,000.00
Rural Experimental Schools—Wilton, Connecticut	2,000.00
The Keith Fund, Inc	7 500 00
	7,500.00
Survey of Lutheran Higher Educational Institutions in	
the United States, Board of Education of the United	•
Lutheran Church of America	1,182.14
Florida Educational Survey	
State of Florida	16,714.65
Survey of Higher Education in Maine	1,375.00
Survey of Schools of Newburgh	5,000.00
Chattanooga and Hamilton County Survey	6,000.00
Maple Heights, Ohio, Survey	6,000.00
Perth Amboy, New Jersey, Survey	6,000.00
Salary Study-Yonkers branch of N. Y. S. Teachers Assn.	2,000.00
Practical Arts Research and Equipment	17,512.60
The Child Development Institute	
The Laura Spelman Rockefeller Memorial	90,000.00
Laboratory Schools	,,,,,,,,,,
Lincoln School	
General Education Board	100,000.00
Recreation—Mr. and Mrs. O. Friedman	250.00
	230.00
Horace Mann Elementary and Girls' High School	
Mr. Robert W. Boyd \$1,000.00	
Administrative Board 8,000.00	
Herbert H. Lehman 500.00	
William Schiff 500.00	
Carl Pforzheimer 500.00	
Robert E. Simon 500.00	
David A. Schulte 500.00	
Herbert H. Maass 250.00	
Interest	
Parents Association 500.00	\$12,500.00
Horace Mann Boys' School	
Administrative Board \$8,546.95	
Mr. Julius Buchsbaum 1,100.00	
Mr. Joseph M. Hyman 1,100.00	
Mr. Robert W. Boyd 1,000,00	
Mr. and Mrs. Geo. W. Alger 200.00	
Mr. D. A. Schulte 11,000.00	
Parents Association 500.00	
Mr. A. A. Zucker 500.00	
Mr. Julius Prince	
Dr. Harold Neuhof	\$24,221.95
Student Loans	
Delta Sigma Society	124.79
Mrs. Edna Hope Gregory	600.00
Mr. V. Everit Macy	8,000.00
Mr. Dunlevy Milbank	500.00
Jackson Heights College Women's Club	100.00
Miss Yvonne Fassler	300.00
Mr. R. R. Reeder, Jr.	100.00
Miss Mercy Jane Hayes	1,000.00
Allow Michely Jame Hayes	1,000.00

\$520,257.04

FINANCIAL REPORT of ST. STEPHEN'S COLLEGE 1928–1929



ST. STEPHEN'S COLLEGE—BALANCE SHEET—JUNE 30, 1929

		\$397,749.32		\$1,233,715.89						\$22,654.98	\$1,654,120.19
	\$248,474.88 142,546.98 6,727.46	\$122,098.12	208,668.43	\$1 835.00	4,418.90 188,450.00	\$194,703.90				172,048.92	
LIABILITIES	Endowment and Special Funds: Endowment Funds, unrestricted as to income Endowment Funds, restricted as to income Special Funds, restricted	Total Endowment and Special Funds	Equipment Fund Funds invested in new construction	Total Plant Funds	Accounts Payable	Total Current Liabilities			Excess of Current Liabilities and Surplus	over Current Assets and Deferred Charges	
		\$391,021.86		\$1,21,569.04						\$31,529.29	\$1,654,120.19
	59,000.00	ets	900,802.49 208,668.43			\$13,718.92		\$10.505.68	\$7.304.60	rges	
ASSETS		cial Fund Ass \$15,076.25 107,021.87		harges:	\$11,958.07	1,435.85	\$1,555.00	4,842.43	\$5,369.69	Deferred Cha	
	Endowment and Special Fund Assets: Investment Securities	Total Endowment and Special Fund Assets Grounds: Land \$15,076.25 Yard and Outside 107,021.87 \$122,098.12	Buildings	Total Plant Assets	Cash: Chase National Bank Chemical Bank and Trust	Company Petty Cash on Hand	Accounts Receivable: Student Loans	ities Endowment Pledges Receivable	Deferred Charges: Unexpired Insurance Prepaid Interest on Loans Prepaid Rynenese	Total Current Assets and Deferred Charges	

ST. STEPHEN'S COLLEGE—INCOME AND EXPENSE ACCOUNT— GENERAL FUNDS

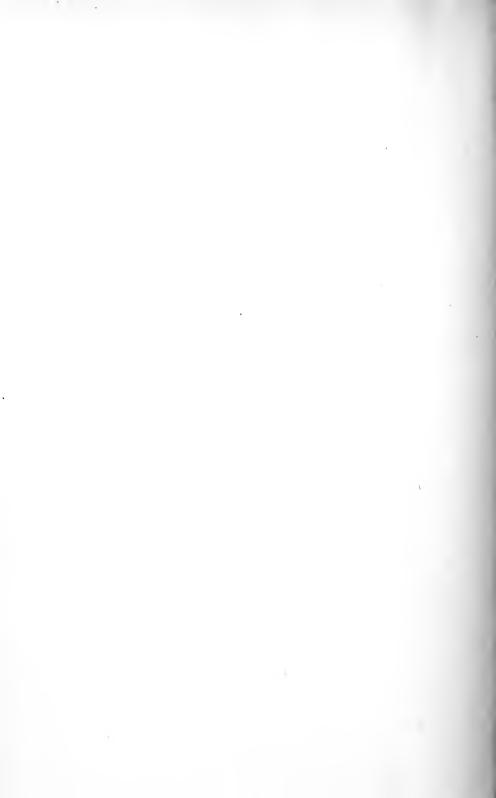
FOR THE YEAR ENDING JUNE 30, 1929

INCOME FROM ALL SOURCES		EXPENSES	SES	
From Students' Fees	\$81,421.56	\$81,421.56 Education Administrational and Instruction \$131,380.88	ction \$131,380.	88.
From Endowments	15,225.79	Buildings and Grounds Maintenance	36,098.64	.64
From Receipts for Designated Purposes	31,798.90		4,235.02	.02
From Miscellaneous Sources	52,860.74		30,864.82	.82
		Annuities	00.000	.00
		Total Expenses.	\$203,479.36	.36
		Deficit being excess of Ex-		
		pense over Income for		
		Maintenance for the Fiscal		
		Year ended June 30, 1929 . \$20,603.36	03.36	
		Plus adjustment applicable to		
		prior years 1,56	1,569.01 22,172.37	.37
	\$181,306.99			\$181,306.99









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